

The Northern Forest Forum

Working for Sustainable Natural & Human Communities

\$3.00

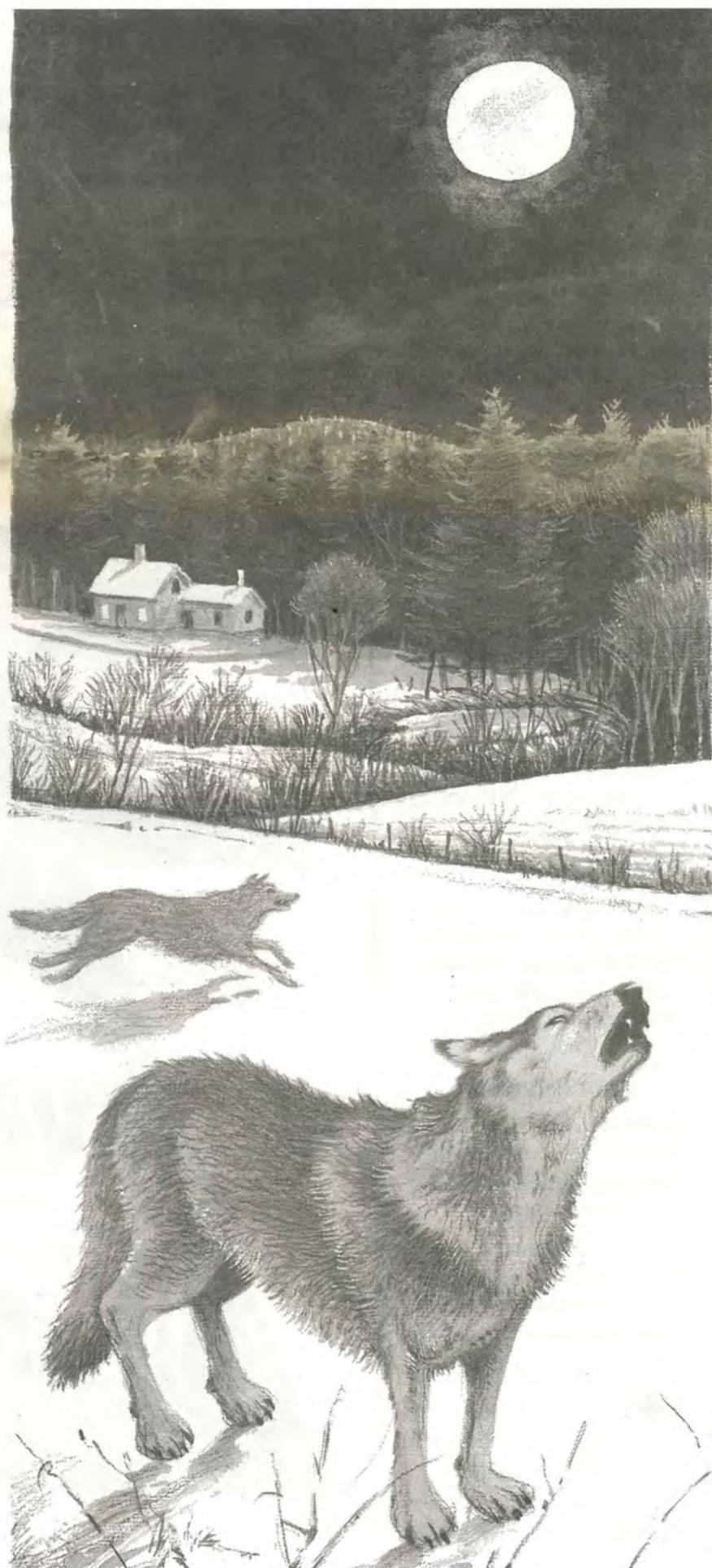
Winter Solstice 1997

Volume 6 No. 2

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On the Absurdity of the Industrial Growth Society

As we approach the new millennium, we ought to consider if our society is capable of surviving to another millennium. The Shakers cautioned that we should act as though we were going to die tomorrow and as though we were going to live for a thousand more years. If we are going to die tomorrow, we will do what is most important today. If we are going to live for a thousand more years, we will take care that we don't make the future into a living hell.

There are not a lot of politicians or planners who are thinking a thousand years ahead. They are thinking ahead somewhat, but their planning is based on the philosophy that Trend is Destiny. Take past trends of growth in population and per capita consumption, project them to a rounded date, such as 2020 or 2050, and plan to meet those "demands." To oppose the necessary activities of increased resource mining, intensified crop management, or mechanized manufacture is to oppose Progress and ignore Reality. Indeed, to maintain current growth rates of our economy, we will have to double our resource consumption every 20 years, or Jobs will be Lost.

Growthmaniacs have a perverse logic. They argue that we need growth to solve environmental problems because it takes money to regulate pollution and money is best generated through growth. They also argue that growth is needed to generate wealth to help feed and clothe the growing poor. This heart-warming theory posits that we do not have to address the maldistribution of wealth because the rising tide lifts all the ships.

But what if we assume longer continuity of our society? In Switzerland, for example, some forests have been

selectively managed for six centuries. The Mandarin bureaucracy, established in the Han dynasty of China, lasted two millennia. Parts of China and India have been farmed continuously for four millennia. Why not, therefore, project further—at least one thousand years?

Let's take roads as one example. Assume that the Maine Turnpike needs two new lanes for every 2,000,000 extra cars that travel that road per month. Assume that the extra two lanes add another 30 feet of width to the the turnpike. Now assume that the historical increase in traffic since it was built in 1956 has been 6% per year. How wide would the turnpike have to be in one thousand years at this rate of growth?

A quick, back of the napkin calculation shows that in one thousand years, the turnpike would need to have 2 X 10²⁵ lanes. As a point of reference, the total number of seconds that have elapsed during the existence of our galaxy is estimated to be, at most, 10¹⁸. The width of this road would be approximately 10 billion light years, and it would be expanding into space at more than half a billion times the speed

of light. That is certainly a lot of asphalt!

While some skeptics may question if there is enough asphalt on earth to pave more than the known universe, technological optimists might reply that the free market can always find resource substitutes. Most physicists would suggest, however, that even if the asphalt or asphalt substitutes can be found, it might not be possible to pave the universe faster than the speed of light, which seems to be a limit.

If one performs a similar exercise with anything else that is growing at a geometric rate—including the stock market—one gets the same result: at some point the growth cannot be sustained due to some limits in the systems of which these growing items are a part. There is only, for example, so much forest land in the United States. Even if one transforms all of these forests into fast-growing plantations, at some point this will not be enough to meet the "needs" of a growing population that is consuming more and more paper.

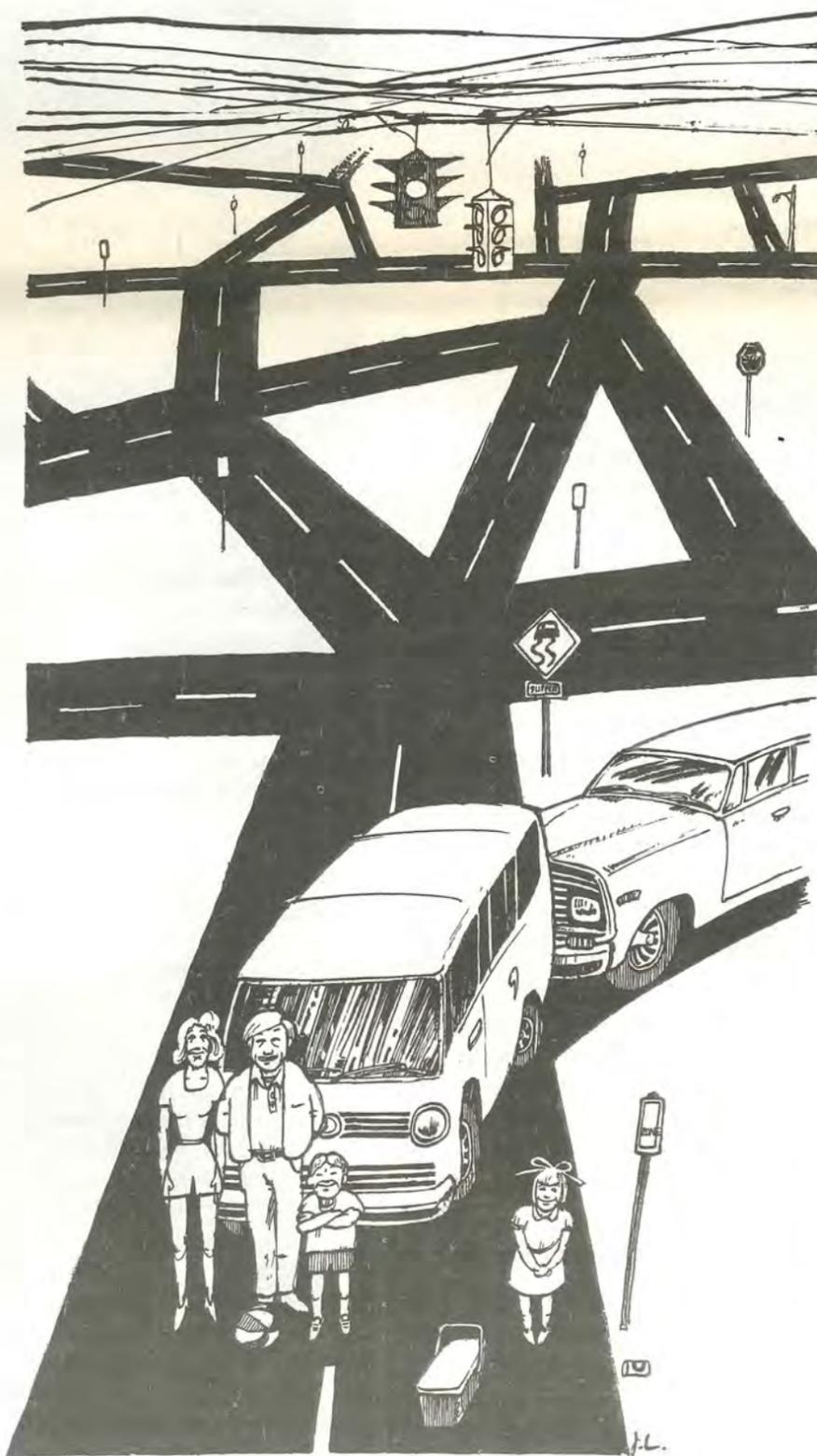
In our world-wide economy, these limits are masked. If we run out of wood pulp, we can get more from

Canada, Brazil, or Siberia. The limits to exploitation now, therefore, are global. If we overshoot local limits, but do not rely on the global markets, we will have a local collapse. If we overshoot the global limits we will have a global collapse.

The rising tide analogy has not been a good social, environmental, or ethical model. Despite tremendous economic growth since 1950, maldistribution of wealth has increased within industrial societies. Maldistribution of wealth has also increased between industrialized and less-industrialized nations. As essential "resources" are used up, the disparity of wealth between generations is expanding as well. Certain resources do not have substitutes—such as fresh air, clean water, fertile soils, or intact ecosystems. What some consider to be an increase in wealth, as raw materials are converted into manufactured goods, others see as resource capital-depletion. The last time I went to the ocean, I noticed that not only did the tide go up; it came down too.

Can you seriously imagine our society, based on geometric industrial growth, persisting for a thousand more years? If this is not possible, if there are limits to such growth, why are we living as if limits did not exist and that there are no other options? What changes would we need to make to allow us to persist as a society for a thousand more years? Should we not start making such changes now, rather than waiting until it is too late?

—Mitch Lansky



The Road to Hell is Paved

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The Northern Forest Forum is published six times a year by The Northern Appalachian Restoration Project
A Non-Profit Organization

Eastern Old Growth Notes

Eastern Old Growth Notes is edited by Mary Byrd Davis and published by Eastern Old-Growth Clearinghouse, PO Box 131, Georgetown, KY, 40324. To become a sponsor of the Clearinghouse and receive the quarterly newsletter, send \$30 to this address, checks made out to the Eastern Old Growth Clearinghouse. The benefactor and low income rates are \$60 and \$15, respectively.

Currently in its first volume, Notes is an important compilation of news and research and conservation information concerning eastern old growth forests. The excerpts which appear on pages 12-15 and 18 address research conducted in the Northern Forest. They suggest aspects of the scientific basis for old growth restoration and forestry reform efforts—and a system of ecological reserves which would assist the conservation of old growth functions across the landscape.

Illustration Credits

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- ↳ Jon Luoma—Front Cover, pages 2, 7, 9, 24, 25, 28, 29
- ↳ Rachel O'Meara—Mast, page 16
- ↳ Salmon Raven Deer, page 6
- ↳ Sue Szwed—pages 23

Weaseling Out of Environmental Impact Review

Dear Editor:

On November 12th, Maine's Board of Environmental Protection rejected the appeal by the Coastal Waters Project of the approval by the Department of Environmental Protection of a high capacity hardwood chip mill in Millinocket.

Since the application referred to "export" of chips from the mill, Coastal Waters inferred that at some future time, Huber Resources wanted to have the option of exporting chips out of the country through Searsport, or Eastport. They cited non-indigenous marine organisms being inadvertently imported in ballast water as a potential off-site impact. Huber Resources supervisor of forestry operations stated under close and specific questioning from the Board as to whether HRC planned to export chips, "No."

The most substantive element of the appeal was the section of Site law which requires a wood supply plan be submitted with the application if the development will require a supply of 150,000 tons green weight annually. By accepted rule of thumb, the 100,000 cord of wood to be chipped at the facility would be approximately 250,000 tons green weight.

Our appeal of the Gardiner Chip Mill revealed a loophole in the Site Location of Development Statute 38 M.S.R.A. sections 481-490. It appears to have developed over a period of several years, through the use of subtle and apparently unrelated changes in definitions and language. We have not had time to research the origin of these amendments to the initial Site of Development Statute, but they effectively tie the hands of the BEP.

It works something like this.

In section 481, the Legislature clearly recognizes the off-site effects of a development can be felt, and affect people far removed from the actual site of the development, and that the people have a compelling interest in assuring that large developments do not adversely affect the natural environment and the people of the State.

In sec. 482, Definitions, subsection 2.C. a structure as defined in this section is the part of the definitions that would apply to this facility. In subsection G.B., a structure is defined as buildings, parking lots, paved areas, and areas not to be revegetated that cause a project to occupy a ground area in excess of three acres.

In sec. 488, subsection 18.A, the roundwood storage yard is exempted from review under this article provided a notice of intent to comply with certain provisions is filed prior to clearing and construction.

Gardiner Chip Mills filed the notice of intent to comply and received the above exemption, reducing the footprint of the facility to less than three acres. Thus the facility is not defined as a structure (sec. 482, subsec.2.C.).

Since the facility is not a structure, it does not meet any of the definitions of a development in sec. 482.

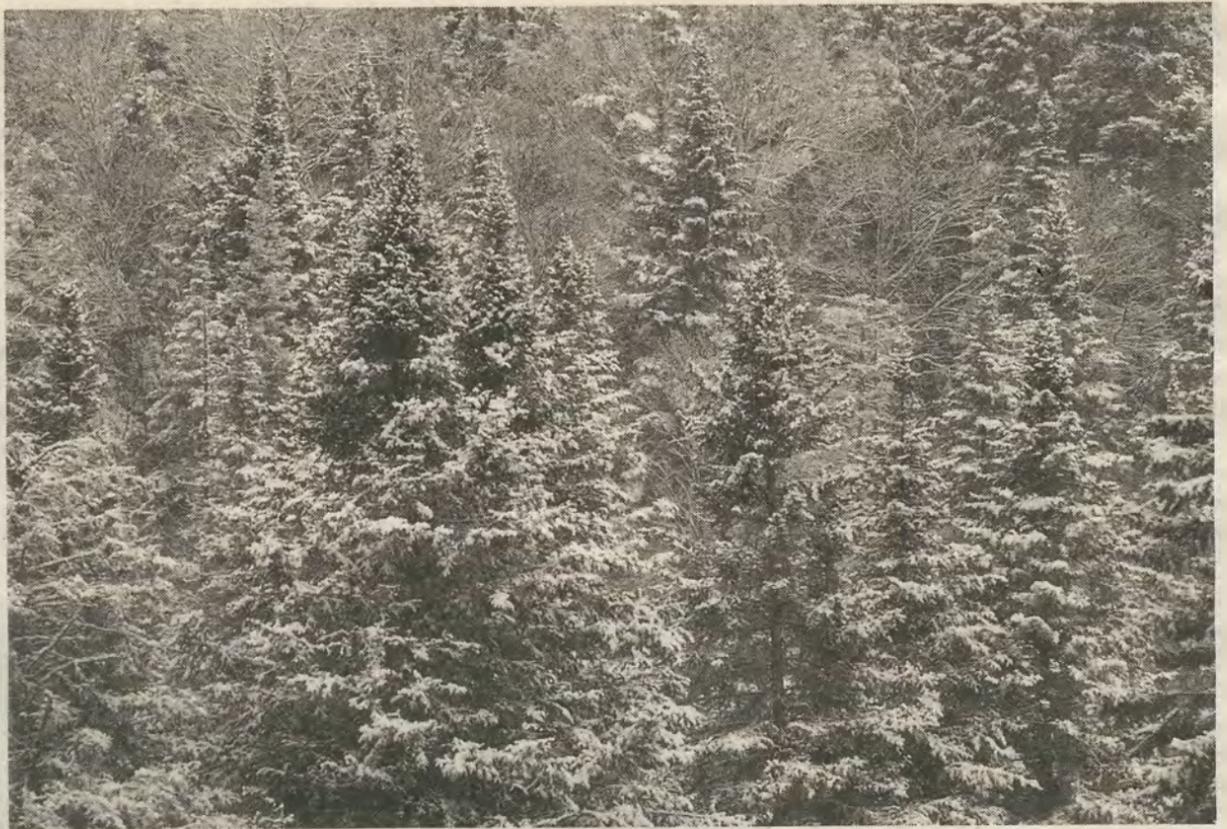
In sec. 485-A, subsec. 1-A, any new or expanded development requiring an annual supply of wood or wood-derived materials in excess of 150,000 tons green weight must file a wood supply plan with the Director of the Maine Forest Service, including a general sourcing area study and other pertinent information with which the MFS could assess off-site impacts the development would have over its projected lifespan.

Since, as noted above, the facility is by definition not a development, no wood supply plan was required. . . Checkmate.

If the same facility had been built on a 3.5 acre lot, the study would have been required because of the amount of wood the plant will require.

While the next move is not certain, it seems clear that addressing this double shuffle should be high on our agenda, so it looks like we're off to Augusta!

Peter Neils
Appleton, Maine



Grafton Notch in winter. Photo © John McKeith

Ruinners of Forests Should Be Treated as Criminals

To the Forum:

I've been receiving issues of the Forum for about a year and look forward to its information, which, though giving all sides of issues, is aimed toward the sustainability and health of the northern forests. I am glad the Forum is out there promoting that!

I testified at one of the hearings about Champion's wanting to herbicide its forests, mainly testifying to the past record of that company to its clearcut and clear out actions. And here they are doing it again.

It seems to me that it is criminal for Champion (and other multinationals) to engage in actions that ruin forests. Criminal, I repeat, and perhaps it is time that misuse of the land in ways that are far-reaching and with disastrous or grave consequences for the people, animals and general well-being of the land, should be considered as crimes and dealt with from that standpoint. Instead of buying their land, I would like to see it confiscated from their control and become state or federal lands, as reparations for their misuse. There is also the point that corporations have charters and in the law it is said that when they perpetrate abuses in the pursuit of their business, their charters can be revoked. Subsequently, as you probably know, the corporations got around things by having judges declare them "persons" protected under the Bill of Rights.

The other question is that when land is under state or federal management we are dealing with the Forest Service. I have been collecting information that shows unmistakably that the Forest Service acts against the forests and for the multinationals which must have infiltrated the Forest Service to such a degree that they have become the enemy of healthy, sustainable forestry. I don't know where to take this documented information, however. How would the Forest Service as it is be replaced by what they were formed for in the first place?

I hope you have an answer to the above, or about some of it. Perhaps it is merely pie in the sky, but it seems that when an idea's time has come, there is the possibility of it taking hold. Ruining the earth, on which all life depends, to become a criminal act and dealt with as such, maybe is one of them.

Thanks for your attention!

Lea Wood
Underhill, VT

Ed. Note: Society removes a child from abusive parents. Why shouldn't society remove land from abusive owners?

Forest Resource Planners Must Recognize Continuity of Nature

From a letter to Steve Sinclair, Vermont Forest Resource Plan Committee Staff Person

Dear Steve, and Members of the Steering Committee:

I attended the meeting in Morrisville on Thursday evening and, quite frankly, I was astounded to hear the arrogant, anthropocentric nonsense spewed forth by so many at the gathering. I have to commend you for your resilience in the face of such ire. Here you are conducting a free and open meeting to invite input from citizens on how best to manage a common resource, and you're accused of communism. The irony!

It was suggested by someone at the meeting that those of us who promote stewardship of our natural resources, who wish to conserve and restore some of our natural heritage so that future generations can experience untrammelled nature, are "pantheists." (In fact, a poor choice of words since being a pantheist simply implies a belief in God; "druid" would have been a more apt epithet to sling at the environmentalists in the room). This person went on to imply that environmentalists are takers, while those who exploit the environment are givers, yet another incredibly ironic misconception. By and large, environmentalists live in smaller homes, have more modest lifestyles, drive smaller and older cars, have fewer children . . . than those who see only the commodity value of our natural world.

As an ecologist, I recognize the incompatibility of land ownership, as it exists here in the United States, with conservation. Nature does not recognize geopolitical boundaries, let alone private property lines. *It is, of course, imperative that you recognize the continuity of nature in your management plan, so that as we inscribe the landscape with our artificial lines, we do not sever those vital connections that maintain the integrity of natural systems.*

Furthermore, I applaud the use of the word "spiritual" in your Vision statement. The word spirit, if one bothers to look it up, is not an *a priori* acknowledgment of any particular religious conviction. Traced to its origins, the word spirit derives from the Latin word for air, or vital force. I interpret your inclusion of spirit to mean that we—those of us who own property, as well as those of us who do not own property, native Vermonter or transplant—have the right to certain vital forces, such as clean air, water, biodiversity, nourishing soils, wilderness and freedom from toxic substances in our environment.

With gratitude and respect,
Gustav W. Verderber
Naturalist

Ed. Note: See article on Vermont Forest Resources Planning process on page 19.

MAINE UPHOLDS THE CHIP MILL-IN-NOCKET

by Ron Huber

On November 12, 1997, the Maine Board of Environmental Protection upheld state permits granting Huber Resources Corporation and its leaser Gardner Chipmills Millinocket LLC the right to continue construction of a mammoth subsidized hardwood chipmill on the outskirts of Millinocket.

The JM Huber Corporation, (one of the largest family owned corporations in the United States, with interests in coal, petroleum and forest products), proposes to supply the Gardner Chipmill with all its hardwood stands, over a 17 year period, at which point Gardner has promised to remove all fixtures from the site. Huber owns approximately 400,000 acres stretching from the east side of Baxter State Park north to the Canadian border at Fort Kent.

While critics say that Huber has depleted their spruce and fir on their holdings and is now proposing to liquidate its hardwoods, Huber says it is merely developing an underutilized resource. But with the process apparently to be all-age logging (sawtimber to sawmills, pulpwood to the new chipper, and the remainder to biomass and mulch), the company doesn't appear to have sustainability on its mind.

At the hearing, in addition to appellants Coastal Waters Project, the board heard from a representative of Huber Resources Corporation, its attorney, and the city official from the town of Millinocket. The town floated a 4.1 million dollar municipal bond to subsidize the woodchipper.

The hearing started with Maine DEP's Stacey Beyer giving a short history of the project, and her department's recommendation that the appeal be denied.

The Board limited opponents of the chipmill to 4 speakers out of the more than 20 opponents there. Ron Huber, Tom Foote, Nancy Allen and Peter Neils spoke.

Huber called on the Board to follow the clear intent of the Maine Natural Resources Protection Act, which notes that "the likely secondary and cumulative effect of frequent minor alterations and occasional major alterations of these resources poses a threat to the environment and economy of the State and its quality of life," and withdraw the company's permits pending further review of its offsite impacts.

Foote laid out for the Board a comprehensive yet concise overview of the status of the state's forests, which set the tone and context for the rest of the hearing, and bade the Board consider this chipmill's broader regional economic impacts to small woodlot owners. Neils who angrily repulsed several attempts by the chipmill attorney's to derail his testimony, cast convincing doubt on the sustainability of the operation. Allen, noting that a federal Clean Water Act permit had been required as part of the permit process, called for a full Environmental Impact Statement, pursuant to the National Environmental Policy Act.

Huber Resources' attorney, Tom Doyle of Portland law firm Pierce Atwood, challenged the right of citizens who were not property abutters to

appeal the chipmill. The Board denied the challenge, and affirmed the appellants' standing, saying:

"The Board has considered the arguments of both parties and finds that the CWP is an aggrieved party within the context of Department regulations. The CWP appeal is based on concerns over impacts to Penobscot Bay and resources in its watershed. The project is located in the watershed of the Penobscot River and Penobscot Bay. CWP represents that their members rely on the natural resources economically and recreationally, and CWP

argues that those resources will be adversely impacted by the project. Based on CWP's representation concerning its members' use of the waters that this appeal claims will be affected, the Board finds that CWP has standing for appeal."

Regrettably, the Board was not willing to take the same broad view when it came to the substance of the appeal, accepting the Doyle's argument that only those impacts within less than 1/2 of the physical 'footprint' of the chipmill need be considered.

The Board wrote:



Nature's wood chips. West Branch Penobscot River. Photo © Betsy Fuchs

Portsmouth, NH Woodchip Export Plans On-Again, Off-Again

by Ron Huber

The 1997 Journal of the International Woodchip and Pulplog Trade discusses Portsmouth as a possible site for a new woodchip export facility.

However, a representative of Bulk Loader, Inc, the stevedore company that will handle exports through the terminal, said that while they have heard from woodchip buyers from time to time, the companies have been reluctant to sign long-term shipping contracts that would give the port the justification to spend the large amount of money needed to set up the infrastructure to handle woodchip exports.

According to the Journal of the International Woodchip and Pulplog Trade: "[Portsmouth] has... been studied for a long time as a potential source of woodchip exports. Reportedly, a Japanese trading company and a local lumber producer, who do not wish to be identified, are close to finalizing an agreement for chip exports. The supply area, in the mountains of New Hampshire, does include a higher percentage of 'hard' hardwoods than are found in Maine. Export volumes would be in the 100,000-150,000 BDU* range."

While woodchip export through Portsmouth is apparently not in the cards for the time being, the port bears watching. With hardwood chips becoming increasingly economically desirable globally, the situation could change in an instant.

*[Author's jargon note: BDU = Bone Dry Unit = 2400 pounds, so the new port would handle roughly 200,000-300,000-plus green tons—up to 10,000 acres/year.]

"The statute requires the Department to grant a permit to any applicant meeting the listed criteria when an applicant's proposed project meets the statutory standards; possible environmental impacts which may occur outside of the project area and which would be the result of the actions of customers, suppliers, or other parties are not grounds for a denial of an application.

"In reviewing the list of concerns raised by CWP in their appeal of the wood processing center, the Board finds that, in every case, these concerns are not cumulative project impacts, but are indirect impacts which are not subject to review in this licensing decision."

During the hearing at least one board member declared himself disturbed by the fact that while he found the appellants concerns over impacts to the environment reasonable, the project was legally exempt from state law requiring any new wood processor consuming more than 150,000 tons of green wood per year to carry out a wood supply study reviewing the new facility's impact on state wood supply and forest sustainability.

The state had based this on a recently enacted loophole that exempts industrial facilities with a physical 'footprint' less than 3 acres in size from requiring a review of offsite impacts, regardless of the intensity, or throughput, of the industrial process.

One of the Board members questioned whether the project was actually less than 3 acres. Attorney Doyle displayed a large mounted map to the Board (the map was not visible to the appellants), and ticked off a not very convincing set of acreage estimates for the various parts of the plant.

With other applicable state laws limited to 'footprint' impacts, the Board found that the onsite environmental impacts were adequately mitigated or compensated for, and voted to deny the appeal.

The Board declared itself somewhat troubled that, while the appellants concerns were reasonable, its hands were legally tied by the exemption, and suggested that this exemption could usefully be reviewed by the Maine legislature.

Next?

One battle is lost, but the war is by no means over. In affirming citizens' legal standing to appeal, the Board has left the door open for further action, albeit with a rapidly running timeclock.

Appellants are reviewing options, from litigation to the legislative remedy as suggested above, to requesting re-review of the project's Clean Water Act certification, to truth-checking the actual size of the project's footprint to determine whether it indeed falls below the state's 3 acre threshold exempting the project from offsite impacts review.

The alternative - that this high capacity chipmill become the prototype for ever more export chippers - is too awful to contemplate.

Ron Huber directs the Coastal Waters Project of NARP. He is not related to the JM Huber family, although he'd consider an offer of adoption.

EPA Willing to Look at Forest Practices in New England?

John DeVillars Says So

by Ron Huber

On September 16, 1997 an ad hoc coalition of 18 grassroots groups from Maine and several other states sent a letter to EPA-Region 1 (New England) administrator John DeVillars requesting that EPA (1) review the impacts of industrial woodchip-oriented forestry on protected resources within the New England forests, (2) request regulatory changes that would require the Corp of Engineers to consider offsite impacts when considering permit applications by would-be chipmillers, and (3) call for a moratorium on new chipmills until EPA's regional study is completed.

The following is DeVillars' response, in which he says EPA lacks authority to enact a moratorium. He agrees that the present day Corps definition of offsite and cumulative impacts is too narrow, but EPA had already tried and failed to get it changed. Significantly, he adds that "EPA could participate as a stakeholder in a study of forestry practices provided there was enough interest by the environmental community, state and federal forestry agencies, other state agencies..., industry and other stakeholders."

A tall order. An EPA staffer assigned to work on this proposal suggested to this writer that rounding up such a cast of stakeholders would likely be impossible without the aid and assistance of Maine Audubon Society, Natural Resources Council, and others with access to decisionmakers within the government/industrial complex.

As he's likely right, initial negotiations with the biggies has begun, which despite the initial mutual venting of some Compact-related righteous spleen, now holds promise. (Is this the sound of fences mending, under an overarching ecological imperative?)

Time will tell.

For a copy of the joint letter to DeVillars, contact Coastal waters project at 60-A Grace street Rockland Maine or email <coastwatch@acadia.net>

Dear Mr. Huber

Thank you for your letter of

September 16, 1997, expressing concern about the impact of woodchip mills on forestry practices in New England. You asked EPA to: 1) conduct a study of chip mill induced forestry practices on the New England environment; 2) petition the Council of Environmental Quality (CEQ) to redefine the Army Corps of Engineers (Corps interpretation of NEPA to require consideration of offsite and secondary impacts of woodchipping operations); and 3) propose a moratorium on chip mills and related facilities until a regional impact study is completed.

Taking the items in your letter in reverse order, EPA does not have the authority to impose a moratorium on chip mills, and most do not require any permit or approval from EPA. EPA agrees with your interpretation of NEPA, that the Corps should consider

secondary impacts in reviewing 404 applications. EPA raised this issue to CEQ in the mid 1980's when commenting on the NEPA regulations, and in comments since then; however, CEQ has adopted the Corps position that will likely stand until a successful court challenge. As we did in the Sears Island case, EPA will advocate to the Corps or any agency, full consideration of secondary and offsite impacts in any NEPA review of projects involving woodchip operations.

EPA could participate as a stakeholder in a study of forestry practices provided there was sufficient interest by the environmental community, state and federal forestry agencies, other state agencies such as Maine State Planning and MDEP, industry and other stakeholders to make the efforts successful. I understand you are following develop-

ment of a scope of work for a study of chipmill impacts in North Carolina and are consulting with others to determine the interest of potential stakeholders in a study in New England.

I also understand you have discussed your efforts with Steve Silva, Manager of EPA's Maine State Office and are scheduling a meeting with him in November. Meanwhile, I want to thank you for contacting us on this issue and for your efforts and concern for the New England environment.

Please do not hesitate to contact me or Steve Silva at (617) 565-4423 if you need further assistance.

Sincerely

John P. DeVillars
Regional Administrator



Stripping & chipping in New Hampshire. If the states refuse to protect their forested environment, perhaps it is time for the EPA to help out. Photo © Alex S. MacLean

Bowater, Kimberly Clark to Strip, Chip, Ship Nova Scotia Timberland

by Ron Huber

Back in April, Dartmouth ecologist Steven Kerr wrote an opinion piece "Wood chip sales could mean disaster", that was published in the Halifax, Nova Scotia, *Chronicle Herald* newspaper. Kerr was referring to a new woodchip mill and export dock planned for Sheet Harbor, on the eastern side of Nova Scotia.

A marine biologist, Kerr looked at the marine impacts and predicted major problems for Nova Scotia's wild fish and shellfish from the dumping of exotic species laden sea water ballast by arriving Japanese woodchip vessels, a global problem afflicting coastal ecosystems wherever woodchip export terminals are operated.

However, the forestry impacts of woodchip export operations are equally disastrous, as multinationals sell, buy and deforest great swathes of Nova Scotia's northern hardwood forest to meet the latest uptick in global woodchip markets.

While no more than an outline of the predictable backroom deals that have spawned Northern Fibre

Terminal Inc and its chipmill-export complex at Sheet Harbour are available, a picture yet emerges:

The chipmill/terminal has been completed; a Mitsubishi Corporation ship carrying the first load of wood chips for Japan was scheduled to depart from Nova Scotia around December 6th. Industrial forest owner giants Bowater and Kimberly Clarke (which is presently reincarnating into an appendage of Canada's biggest pulp company Harmac Pacific), as well as from smaller forest owners, will cut a 200 kilometer radius of the Sheet Harbour operation. A ten year, 250,000 tonnes per year hardwood chip deal has been struck with Mitsubishi.

Bowater and KC call the export project an opportunity to clear "surplus" "lowgrade" hardwood from their pulp operations. Critics note that what the mills tell the public are "lowgrade" hardwood stems, magically transform into "high grade, high quality" hardwood chips once they pass through the chipper and are offered to the global woodchip market.

Boosters of the project say the export terminal will employ from ten to 15 people, but will induce up to

100 other jobs including logging and trucking. Critics note the price paid per cord for hardwood for wood chipping is \$44.50 Canadian, considered a lowball price, and call it a continuation of the high volume/low value industrial forestry which has served Nova Scotia so poorly in recent years. They also see the operation as graphic proof of the fraudulent nature of the "New Forest Strategy for Nova Scotia" created in 1996 and promoted by the "Coalition of Nova Scotia Forest Interests". Critics say that the longterm results of the New Forest Strategy will likely be complete industrial domination of Nova Scotian forestry

The Kimberly-Clarke - Harmac Pacific sale is expected to be finalized by early January and will transfer to Harmac around one million acres of woodlands, PLUS a long term lease of 200,000 acres of crown (public) forestlands from the provincial government. Kimberly Clarke (nee Harmac) and Bowater will both provide logs for the Sheet Harbour chipmill.

Note: the writer thanks David Orton of the Greenweb for supplying most of the information used in this article.

Federal Task Force to Ask Gulf of Maine Governments to Combat Exotic Species Introductions

by Ron Huber

At its quarterly (fall) meeting on November 13th in Riverdale Maryland, the National Aquatic Nuisance Species Task Force considered and approved a request by NARP group Coastal Waters Project that the Task Force urge the Gulf of Maine Council on the Marine Environment to create a region-wide aquatic nuisance species prevention and control plan for the three state, two province region. The Task force also heard bad news about the spread of exotics across the USA, and some encouraging news from several novel initiatives.

Earlier this year, the Coastal Waters Project, joined by an eastern Maine pollution prevention group, submitted for adoption a draft resolution to the Gulf of Maine Council on the Marine Environment, asking the Council to "request member states and provinces to join in a regional effort to prevent and control the introduction

and spread of non indigenous aquatic nuisance species into the Gulf of Maine."

The Task Force read our draft resolution at the meeting and, while in approval of the general tenor of the document suggested that the "whereas" section should include dollar figures describing the heavy economic impacts of aquatic nuisance species presently disrupting coastal and inland ecosystems and economies around the globe. (Monetary figures better grab the attention of politicians.) It was also noted that the issue of the introduction of freshwater aquatic nuisance species should be included within the resolution.

The Task Force directed its administrator, Bob Peoples of the USF&WS, to prepare such a letter. The administrator has asked for further assistance from Coastal Waters Project on the language of the Task Force letter.

The meeting also brought together a litany of mostly bad news detailing the

progressive disintegration of the USA's aquatic ecosystems (and those elsewhere) under the maelstrom of trans-global introductions presently occurring thanks to "booming" free trade across the seas:

- Amt of ballast water discharged into US waters:
21 billion gallons per year.

- # of non indigenous species in selected ecosystems:

- Hudson River— 154 species
- San Francisco Bay/Delta— 234 species
- Great Lakes— 139 species
- Florida Inland waters— 154 species
- Coos Bay Oregon— 67 species
- Chesapeake Bay— 120 species
- Hawaii— 4,465 species (yes: four thousand four hundred and sixty five!)

- Endangered species 42% of listed species significantly impacted
- An exotic parasitic worm is infest-

ing abalones on the west coast. It may be transmissible to other mollusks. The "Sabellid worm" retards growth of the infested animal.

- The green crab, well known in New England/Atlantic Canada for preying on softshell clams, is spreading on the west coast, and may soon be officially designated an aquatic nuisance species by the federal govt. This would release federal funds to help infested states deal with the green crab.

- The MV Algonorth, a Great Lakes cargo ship, has been fitted with a prototype onboard ballast water filtration system that will screen zoo plankton and other organisms from the incoming ballast water, then backflush whatever the screen caught back into the same water it came from. The filter is too coarse for phytoplankton. The system can process 1,200 gallons per minute of incoming water.

- Great Lakes (1). An electrical barrier will be installed on the Chicago River, which connects two parts of the Great Lakes system, to block the movement of the round goby, an introduced fish that eats the eggs of native fish species. The electrodes will be laid across the bottom of the Chicago river and the field they create is supposed to deter bottom fish like the goby from traveling past that point.

- Great Lakes (2) The exotic fish known as the ruffe was introduced by ballast water into the Duluth, MN/Superior WI port on Lake Superior in the early '80s, and now by ballast water to Lake Huron. Ruffe has caused major decline of native fish species (predicted 119 million dollar decline in fisheries) Ruffe are now more abundant than all other fish species combined in areas they have colonized.

- The 100th Meridian Initiative - A proposal to keep exotic species that have infested east coast waterways from being transported to the western US/western Canada. Photos were displayed showing a large section of pipe encrusted with zebra mussels on the back of a truck in Kansas headed west on an interstate highway. Exotics may also travel in or on trailered recreational boats crossing the country. Proposal: public education, free sport boat cleaning at major public boat ramps etc.

- The Task Force is planning to create a website to better get information out but as yet has not done so..

If you would like a three page handout from the Task Force detailing non-indigenous species impacts across the United States as of Sept 11, 1997, contact:

Ron Huber
Coastal Waters Project

NEW ADDRESS
60-A Grace Street
Rockland ME 04841

NEW TELEPHONE/FAX NUMBER
(207)594-9851
email— <coastwatch@acadia.net>

Note: A SASE would be helpful, but not necessary.



Federal Energy Regulatory Commission Refuses to Re-License Edwards Dam

Almost a million alewives swam up the Kennebec River this year to the Edwards Dam in Augusta. Blueback herring came in record numbers, also. They were joined by rainbow smelt, striped bass, American shad, Atlantic salmon, tomcod, American eel, and short-nosed and Atlantic sturgeon.

In an astonishing move, the Federal Energy Regulatory Commission has ordered that the Edwards Dam not be relicensed. Conservationists and the State of Maine have argued for nearly a decade for removal of the dam to allow recovery of 17 miles of spawning habitat for an extraordinary variety of anadromous fish species. The move toward deconstruction of the dam was given a boost, too, by an offer from Bath Iron Works to spend \$1 million on removal as part of its mitigation effort for expanding into the Kennebec River downstream. It will probably take years to work through the legal wrangling and many millions of dollars for compensation and removal costs, but the FERC decision is a landmark.

—Jym St. Pierre

Update on Net Metering in Maine

by Pamela Prodan

In a case of first impression, the Maine Public Utilities Commission (PUC) recently scuttled an attempt by Maine's largest utility to eradicate Maine's net metering provisions. As reported in the last *Forum*, small-scale renewable energy advocates were caught off guard during the summer when Central Maine Power Co. (CMP) refused to enter into net metering (also called net energy billing) contracts with residential customers who had installed photovoltaic systems. The PUC's current regulations allow for residential and small commercial customers with renewable generating systems to use the distribution system of the local electric utility as a giant storage battery to offset their consumption with their excess production.

CMP's position was that the Maine regulation on net metering violates PURPA, the federal law that controls how much utilities can be required to pay for power. Utilities can not be required to buy wholesale power from renewable generators at above the avoided costs. However, the residential customers' attorney argued that these customers use excess electricity generated by their solar panels to offset electricity that they would otherwise purchase from the utility. "Such offsets or exchanges of electricity are common among utilities and other electricity generators, and are not considered sales of electricity." The PUC ordered CMP to comply with the existing rule, finding that at no point under a net billing arrangement does a utility actually purchase any power at above avoided costs.

The PUC is now revising its regulations on cogeneration and small power producers, which includes net energy billing arrangements, to conform to Maine's new restructuring law. The proposed section on net energy billing requires existing contracts to continue in effect. For net billing after March 1, 2000, the target date of retail access, the PUC is looking at two alternative ways to accomplish net energy billing. The first alternative is similar to the existing rule, except that the customer's competitive provider will purchase the excess generation, instead of the local utility. The second alternative requires two meters to be installed instead of one, with the customer possibly paying for the second meter. Both alternatives acknowledge that, in the words of the Commission, "an existing practice that facilitates the use of small, renewable generating facilities without incurring unnecessary costs is not one that should be disrupted solely as a result of industry restructuring." Indeed, net energy billing should become more widespread as public concern about the environmental impacts of electric generation increases and as the cost of photovoltaic systems decreases. Financing appears to be the main barrier left to installing small-scale renewable generating facilities.

FDA Approves Beef Irradiation

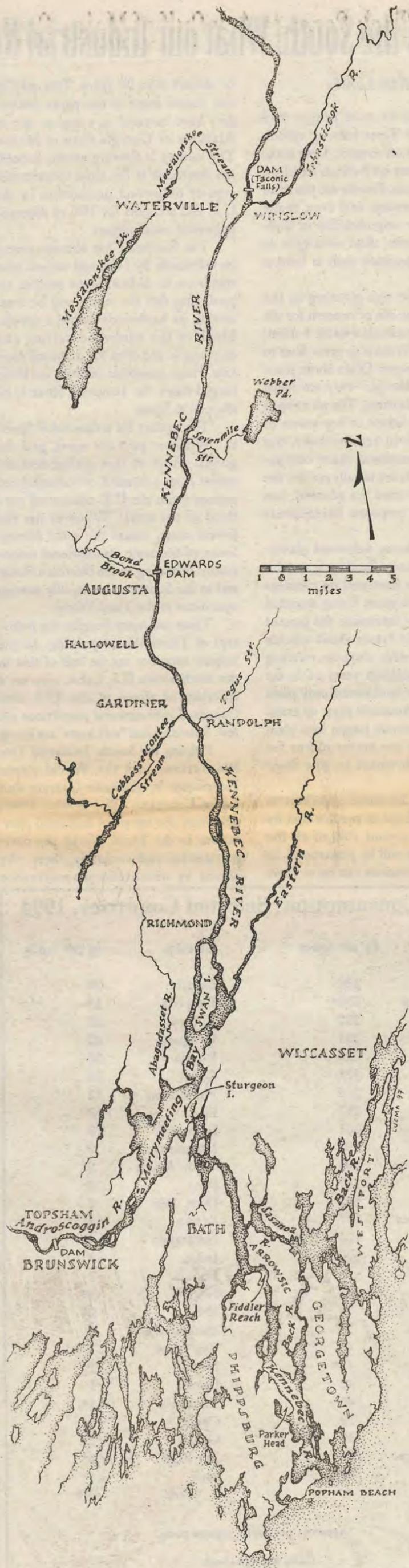
The Food & Drug Administration's approval of beef irradiation raises many serious health and environmental concerns. Irradiated beef has never been proven safe to eat, and the irradiation of food fails to address the root causes of our food safety crisis.

No long-term studies on the safety of eating irradiated beef have been conducted, and the effects on humans are unknown. THE approval of beef for irradiation was based on political pressure, not scientific proof of safety. By its approval, government officials are permitting the use of nuclear waste in an attempt to rid our food supply of bacteria. But irradiation does not kill all of the harmful bacteria, and the radiation-resistant bacteria that survive will continue to multiply, eliminating any presumed "benefit" of the risky technology.

We're confident the public will continue to reject the technology for actual use on the food supply. A recent CBS News poll found that nationwide 73 percent of people oppose irradiation, and 77 percent say they wouldn't eat irradiated food. It's one thing for the government to approve it, it's quite another for the public to buy it.

To ensure beef irradiation, as well as the irradiation of poultry, fruits, and vegetables, remains out of the American food supply, Food & Water will escalate our educational and outreach efforts, including a comprehensive media campaign. For more information, call 802 563-3300

Statement by Michael Colby, Executive Director, Food & Water, Inc.



Pulping the South: What our Industrial Neighbors do in their Tropical Second Homes

by Mitch Lansky

What could be more benign than planting a tree? Trees take up carbon dioxide and give off oxygen. Trees make forests, and forests are habitats for birds, bears, and bunnies. Forests are places to hike, admire beauty, and even recite verses about the improbability of finding lovelier poems. And trees give us many valuable products such as lumber and... paper.

Most of the tree planting in the world is not done out of concern for the climate, the watershed, wildlife habitat, or recreation. It is done to grow fiber to be turned into paper. Often these plantations are not benign—they are social and ecological disasters. The planting is not done at the behest of boy scouts or little-old-ladies-in-tennis-shoes, but rather for transnational paper companies. The benefits are usually not for the area where the trees are planted, but rather for some corporate headquarters far away.

Maine has some pulpwood plantations. The industrial landowners claim that these can be harvested on rotations as short as 30-50 years. Using standard discount rates to determine the present value of expected future yields quickly demonstrates why, despite cutting around a half million acres of forest each year, Maine landowners only plant seven or eight thousand acres of trees. To put that economic jargon into plain English—there are better places for industrial landowners to put their money.

Planting is far more prevalent in the Southeast. Experts predict that by the year 2020, around 70% of all the pine stands there will be plantations. In the Southeast, rotations can be as short

or shorter than 20 years. This may be one reason some of our paper companies have invested at a higher rate in Alabama or Georgia than in Maine. The money is flowing south. Indeed, the Southeast is the most concentrated area of pulpwood production in the U.S. and accounts for 75% of domestic pulpwood consumption.

The Southeast has already overcut its softwoods by 14%, and natural pine stands are in decline. Some analysts are predicting that the region will be overcutting its hardwoods within a decade. Much of the hardwood cutting and chipping is not even for domestic markets. Huge quantities of chips are being barged down the Tennessee River to be shipped to Japan.

The market for pulpwood is "global." Whoever pays the most, gets the goods. Most of this global demand comes from a handful of industrialized nations (with the U.S. consuming one-third of the total). Whoever has the lowest costs, makes the most money. Some of the same transnational corporations operating in the Northern Forest and in the Southeast are rapidly moving operations to the Third World.

There are many benefits (to industry) of Third World pulping. In the tropics, rotations can be half of that in the southeastern U.S. Labor costs are a fraction of those in the U.S. and Canada. Environmental restrictions are few. Subsidies and "soft loans" are many.

Pulping the South: Industrial Tree Plantations and the World Paper Economy, by Ricardo Carrere and Larry Lohmann (Zed Books, 1996) describes: the extent of industrial plantations in the Third World, the environmental and social impacts, the means by which companies finance

mills and plantations, and the industrial strategies used for overcoming resistance. *Pulping the South* is the source of the information in the rest of this article.

Impacts

Some well-meaning environmentalists have let themselves be convinced that plantations are excusable because they concentrate growth in a smaller area, allowing more land to be used for wilderness. While companies are certainly establishing more plantations, they are not balancing these with wilderness reserves. One reason, perhaps, is that no one has yet announced the end to demand. Why "lock up" timberland into wilderness when fiber growing on today's trees can be marketed for pulp tomorrow.

Even if intensively-managed plantations did produce higher volumes per acre, the benefits do not start until the plantations "mature" (if that's what you can call the end of a short rotation). In the meantime, what you get is heavier cutting of existing stands. If there is any "wilderness" tomorrow, it will have to be grown from today's denuded forest lands.

Some environmentalists want to appear "reasonable" and are willing to compromise away the forests in someone else's neighborhood. They ought to know just what the impacts are to water, soil, biodiversity, and society of the management they are condoning. After reading *Pulping the South*, they might not be so comfortable about their trade-offs.

Water. Depending on the tree species (often eucalytus or some variety of pine) and the regions in which they are planted, plantations have had, at times, severe impacts on local water resources. The impacts have included:

- reduced availability of water for other uses (including agriculture);
- problems of supply for hydroelectric facilities;
- less flow in low periods;
- increased droughts;

- less water for urban centers and local communities;
- damage to wetlands.

In some tropical countries, such as India, these impacts have been severe enough that local citizens have cut the plantations down in protest.

Soil. Short rotations are not sustainable for soil nutrients, organic matter, or soil processes. Evidence is much stronger that yields will decline over multiple rotations than that they will remain steady or increase. Despite various industrial myths that plantations are put in on impoverished wastelands to stabilize the soil, companies prefer productive forests or good agricultural lands. The highest yields are on the best sites.

Plantations (depending on sites and species planted) have:

- reduced soil microlife and organic decomposition;
- removed nutrients faster than they can be replenished;
- increased erosion;
- leached out nutrients;
- caused chemical changes in the soil;
- increased acidification; and
- polluted water with silt and chemicals.

Biodiversity. Plantations involve such activities as clearing, fertilizing, spraying herbicides, planting exotic and off-site species, thinning, and spraying insecticides—all of which can have an impact on native biodiversity. While some plantations are established on already cleared land, around 15% are established at the cost of closed tropical forests. The impacts to biodiversity have included:

- loss of complex native habitat and substitution of monocultures (or near monocultures) of exotics;
- increased invasion and build-up of pest species;
- increased susceptibility to fires; and
- damage to soil, water, wildlife, and even the atmosphere from chemical toxins and fertilizers. In New Zealand, for example, more than 30 brands of herbicides, insecticides, and

Paper Consumption, Selected Countries, 1994

Country	kg per capita	Country	kg per capita
US	332	Brazil	28
Hong Kong	233*	Bulgaria	23
Sweden	232	Turkey	22
Japan	231	Uruguay	22
Taiwan	224	Russia	20
Canada	221	China	20
Singapore	218	Philippines	12
Finland	217	Egypt	10
Germany	201	Indonesia	10
UK	197	Lithuania	9
New Zealand	184	Saudi Arabia	9*
Australia	167	Peru	8
Italy	143	Dom. Rep.	8
South Korea	137	Kenya	6
Spain	125	Nicaragua	4*
Slovenia	100	India	4
Ireland	98	Bolivia	3
Malaysia	82	Nigeria	3*
Portugal	74	PNG	2*
Costa Rica	55	Bangladesh	2
Argentina	45	Viet Nam	1
Chile	42*	Nepal	1
Mexico	42	Burma	1
Latvia	40	Tanzania	<1*
Venezuela	39	Congo	<1*
Poland	38	Ghana	<1*
South Africa	38	Lao PDR	<1*
Thailand	35	Mali	<1*
		World	48*

*Apparent per capita consumption.

Source: Pulping the South

Paper Consumption, Selected Countries, 1994

Country	Apparent consumption (million tonnes)	Per cent of world consumption
US	85.8	32
Japan	28.8	11
China	24.3	9
Germany	16.3	6
UK	11.1	4
France	9.7	4
Italy	8.3	3
Canada	6.2	2
S. Korea	6.0	2
Spain	5.0	2
Taiwan	4.7	2
CIS	4.6	2
Brazil	4.6	2

Source: Pulping the South



fungicides are used on tree plantations. Many plantations get multiple applications.

Social. While the multinational corporations that push these plantations have promised local advantages, all of the above "environmental" impacts have led to local social impacts as well. As forests, farms, and grasslands have been displaced, so have the social uses of those habitats. For example, native peoples have lost use of forests for food, medicine, water, building materials, fodder, and firewood.

As the area in plantations has increased, local problems have led to regional and even national economic impacts. The glut of raw local materials from "mature" plantations have caused wild price changes and increased instability. Local economies are sometimes wrecked as the global economy takes over. Long-term employment has tended to go down as economic opportunities become more simplified. Displaced peoples migrating to cities have increased problems of poverty and crime.

Plantation economics involves a redistribution and concentration of wealth enabled by a concentration of political power. Plantation and pulp mill economics do not function properly without state support in the form of taxbreaks, loans, research, road construction, or port installations.

Those who protest the negative social and ecological impacts have discovered that the state is often more an agency of industry than of the citizens. The history of protest against forest destruction, plantations, chipping, and pulping is also a history of political manipulation, police repression, and violence. *Pulping the South* is full of examples.

The Players

Some familiar names in Maine are also big players at pulping the South.

These include International Paper, Georgia-Pacific, Champion International, James River, Kimberly-Clark, Mead, Bowater, and Noranda (which owns Fraser and MacMillan-Bloedel). These companies have significant holdings in South America, Africa, and Southeast Asia. Their operating budgets are often greater than the budgets of the states, or even countries, in which they operate. Paper companies could not establish plantations or build pulp mills, however, without help—often from the poor areas in which they operate. The "Free Market" is not really free. There are lots of hands at work that are quite visible if one knows where to look.

The front men for the pulp and paper industry are the international consultants, such as the Finnish group Jaakko Poyry, which controls 40% of the market. These consultants are engaged in promoting, planning, lobbying, designing, and setting up pulp mills, logging operations, and plantations.

Technology suppliers (for pulping, logging, and chemical spraying) as well as industry associations can do many things as a group that individual companies may find more difficult alone. They can assure, for example, that universities do industry-friendly research. As a group they can also be quite effective at lobbying for subsidies and against regulations.

Globalization can not happen without subsidization. Industry has taken advantage of bilateral agencies, governments, and multilateral agencies (such as the World Bank or the International Monetary Fund) for soft loans (for "development") tax breaks, and assistance in research and infrastructure.

Propaganda & Power

Industry not only has to attract support, it also has to fend off criticism. Not all citizens are enthusiastic about

paying industry's external costs. Industry strategists have devised ways to deal with resistance. Small pockets of protest can often be overcome through economic or cultural warfare. Key opposition can be isolated and hobbled. Others can be bought off. A few crumbs to potentially belligerent local groups can go a long way to ease the way to industrial progress.

Another strategy is to demonstrate to opponents that their concerns can be met within the industrial system. One merely has to convince them to accept "reality." The language of debate is often subtly translated into industry terminology so that opposition is muted (see box below).

Their "mainstream" status can be damaged if they must deny accusations of being "Communists," "fascists," "traitors," or "anti-development." The debate must not be allowed to address arguments where industry is weak—such as the excessive Northern demand behind the "need" for plantations.

Industry consultants have classified four environmentalist types and have developed strategies for dealing with each:

- *Opportunists* are interested in adding a string of career triumphs to their own curriculum vitae. Strategists try to provide them "with at least the perception of a partial victory."
- *Idealists* want a "perfect world"

and may hold some moral authority because they often have no vested interests. Strategists neutralize them by convincing them that their position can harm others (cause great economic hardships, for example) and try to convert them to become 'realists.'

- *Realists*, though they often see idealists and radicals as naive, are often naive themselves about the workings of power outside corporate and NGO corridors. They are convinced that negotiating and compromising with industry is the only game in town, and they want to be there when it happens—even when they have a poor understanding of that which they are trying to protect and no public authority to trade the forest away. They are also "naively credulous of industry's claim that the only way of getting its attention for the purpose of effective 'damage control' is to accept its language, learn to 'live with tradeoffs,' and abjure radical change." "Radical change" occurs when industry does not get its way.

- *Radicals* who do not accept the industry agenda can be a problem. They are best dealt with through marginalization, isolation, and various forms of repression. More intractable resistance has to be met with force. Opponents can be arrested and intimidated if need be. If the opposition is too widespread, however, sometimes the best strategy has been (as Shell demonstrated in

Opposition language	Industrial language
subsistence	jobs
local livelihood	national economy
survival	economic growth
'death vs. life'	'compromise vs. idealism'
loss of livelihood	economic cost
land rights	economic benefits
bribes	compensation
canceling projects	mitigating impacts

Thailand) to move out and concentrate on activities elsewhere.

To aid in neutralizing environmental threats, industry's public relations teams, such as B-M (Burson-Marsteller) have helped set up phony "grass roots" (a.k.a. "astroturf") organizations. These groups tend to blame environmentalists for all problems, economic or political. They also lobby the government, do propaganda for "property rights" or "wise use," infiltrate the opposition, and set up community advisory groups favorable to industry.

Industrial Myths

Key to industry success is the use of various myths that convince the public that what appears to be destructive to the environment and their community is really a boon to their economy. Industry development is thus to be embraced, rather than fought. Here are just a few:

- *Plantations relieve pressure on natural forests.* Plantation and natural forest destruction often go hand in hand. Plantations are also, generally, growing pulp. This does not take the pressure off of more natural forests for sawlogs.

- *Plantations increase tree cover on the earth.* Plantations may temporarily provide trees, but they do not provide functional forests—with large living and dead trees, diverse species, stratified canopies and downed rotting logs. When plantations get big enough to pulp, they get clearcut. Good-bye tree cover.

- *Plantations help meet increasing demands for paper.* These geometrically growing demands are not a natural force to which we must adapt—they are created by industry. The paper industry has economic cycles based on building overcapacity in boom times followed by demand stimulation during bust times. Much of the demands are frivolous if not immoral. Forty percent of paper use in the U.S. is for packaging and advertising circulars, which are hardly essential for human needs.

- *Plantations help poor nations meet their own needs for paper.* We are supposed to believe that the transnational corporations imposing plantations on Third World nations do so to enable these poor people to have books and toilet paper rather than to produce paper for export to the North.

- *Plantations are ten (or some other number) times more productive than native forests.* Even if this were so, it would only be for fiber in the relatively short term. Plantations are not ten times more productive of birds, fungi, soil micro-organisms, salamanders, or water quality. Even fiber productivity is subject to decline with each rotation.

- *Plantations are needed to absorb carbon dioxide and fight global warming.* This argument says that the poor South should clean up the pollution created by the wealthy North. It is not only immoral, it is also wrong. Short-rotation plantations and energy-hog pulp and paper mills actually are part of the problem, not the solution. Making

short-lived paper products is not a good way to sequester carbon.

- *Plantations are a boon to local economies.* Local economies subsidize plantations. They absorb the external costs. They lose jobs to mechanization. Jobs are often seasonal and not dependable. Other economic activities can be displaced.

- *Plantations are the successful harnessing of science and technology.* Somehow, Ecology has not yet been recognized as a science. If it were, one could say that plantations are the harnessing of technology against the principles of science.

- *If guidelines are used for plantation establishment, this would make plantations "sustainable."* This myth appeals to academics and environmental "realists"—those who do not have to live near the clearings, monocultures, pests, pesticides. It sounds "reasonable." Even if somehow the negative impacts could be mitigated, the history of plantation establishment has demonstrated that such claims are little more than public relations. Investigation has shown that the claims are seldom backed up by actions and the actions rarely achieve the promised environmental results.

Pulping the South has many examples of the misuse of the above myth,

but does concede that:

"This is not to deny that, on some occasions, formulating such principles can be one step in a series of actions and arguments which effectively challenge industry practice." The authors suggest that the first step should be to frame principles "prohibiting wood from any extensive industrial exotic monoculture from being certified as 'sustainably produced' ..."

Conclusion

When dealing with local issues, it sometimes helps to have a global perspective—especially if the problems you are dealing with are the result of global corporations. *Pulping the South* gives us such a perspective. It is easy to feel warm towards a company when you know the employees as individuals or even friends. Seeing what the company does world wide can change that opinion.

While the book has strong analyses of what is wrong—including a number of case studies of tropical countries—it is weak on solutions. But this is, perhaps, unavoidable. One or two people, or even a group, cannot "solve" the problems. The solutions have to come from local communities, alliances between local groups, and alliances between groups internationally. *Pulping the South* does lay a critical foundation for these alliances to happen.



Pulping Maine has opened up some great views of Mt Katahdin. Photo © Stephen Gorman

Pulping Maine

What Impact Will the Compact Have?

Most of the tree planting in The Northern Forest region has been done by transnational corporations such as Sappi, International Paper, Champion International, Irving, and Bowater. But planting trees has not been a major component of their management strategies. Only around seven thousand acres a year are planted in Maine. On many more acres, however, the companies use natural regeneration to create plantation-like stands dominated by balsam fir and spruce, with the help of herbicides and thinning. Some environmental groups and government councils have accepted this short-rotation forestry as somehow acceptable.

Champion has been one of the promoters of the Sustainable Forestry Initiative and Maine's forestry Compact. Spokespeople claim that Champion is living within the constraints of both initiatives, including the Compact's requirement to clearcut no more than 1% of its holdings in any one year period. Some environmentalist Compact supporters have stated that this means that "on average" a given acre could be clearcut no more than once in a century.

The *Maine Times*, reacting to Champion's announcement that it will not only follow the Compact, but also widen its riparian buffers and manage up to 20% of its land primarily for wildlife, praised Champion for the benefits it is bestowing on this state. "Wildlife concerns," wrote editor Doug Rooks, "are finally getting due attention from major forest landowners."

He sees these trends extending to other heavy clearcutters, such as Sappi and Irving who are "beginning to realize that getting more value out of the woods means growing trees larger and longer than quick clearcutting cycles allow."

Before the vote on the Compact, however, Joel Swanton, a Champion forester, told a reporter for the *Bangor Daily News* that his company intended to manage 40% of its land "intensively"—on rotations as short as 30-50 years. With Champion owning over 900,000 acres, this means that around 360,000 acres will be clearcut on an average of a 40-year rotation. Sappi also owns over 900,000 acres and also plans on having 40% of its cuts to be clearcuts on short rotations. These figures, ironically, are still in compliance with the Compact's requirement for clearcutting no more than 1% per year.

Short-rotation forestry, plantation or no, violates basic principles of soil conservation, biodiversity protection, water-quality protection, and sustainability. Saying that a company is cutting on 40-year rotations is another way of saying the company is overcutting. It is doubtful any of these companies will be in Maine 40 years from now to reap the "benefits" of their "intensive management." None of them except for International Paper were here 40 years ago.

Environmental "realists" who negotiated the Compact tradeoffs either were not very good with their math, or they were willing to write off quite a bit of land towards environmental degradation in the name of a small victory (bigger beauty strips). In any case, they were not authorized to make such deals by those of us who have to live near the consequences.

—ML

DYNAMICS OF FOREST ECOLOGY & ECOSYSTEM MANAGEMENT

Part I of a two part interview

David A. Perry is professor emeritus of ecosystem studies in the Department of Forest Science at Oregon State University, and resident ecologist at Ka Ha o Ka Aina (Breath of the Land), Kapa'au, Hawaii. He is an internationally known expert on the structure and function of forest ecosystems and landscapes, the role of biodiversity in ecosystem stability, and the interactions among ecological scales. He has authored or co-authored over 75 refereed journal articles and 13 book chapters and symposium proceedings. He has also authored or co-edited four books, including the outstanding 1994 publication *Forest Ecosystems*. Dr. Perry currently resides in Hawaii, where he is involved with native ecosystem restoration and developing sustainable communities.

Part Two of this interview will address in greater depth the cultural challenge of integrating our understanding of ecosystems with education and forest policy process. In the following part, Forum interviewer Barbara Alexander queries Dr. Perry on the fundamentals of forest ecosystems and how they relate to ecosystem management.

Barbara Alexander (BA): In your role as forest ecologist and researcher you have studied forests throughout the world. What common socio-political pressures exist among our global forests?

David Perry (DP): The common thread that you see throughout the world is that forests play multiple roles for people. They're economically important, but they also have great environmental, aesthetic, and spiritual significance. There are many examples illustrating people's awareness of the environmental services provided by forests. The slogan of CHIPKO, for instance, a peasant-based forest protection movement in India, is: "What do forests bear? Soil, water, and clean air." Native Hawaiians have a saying, *Hahai no ka ua i ka ulula'au*, "Rain always follows the forest."

People everywhere have an ancient and profoundly deep spiritual connection with nature in general, and trees and forest in particular. The withdrawal of spirit from nature is a relatively recent phenomenon, restricted to industrial cultures. According to Sir James Fraser, [author of *The Golden Bough*] ancient forms of tree worship were alive and well throughout Europe in the late 19th century, and in my own experience nature is still openly invested with spirit wherever there are cultural refugia from the pathological materialism of industrial societies.

When I first came to Hawaii, I attended a forestry conference and was delighted to find it opened by an ancient Hawaiian chant asking permission to go into the forest and gather; since, I've found that it's the rule rather than the exception here to precede technical meetings with a traditional Hawaiian prayer or chant.

Similarly, the blessings of the Spirit were invoked each morning during a

At some point, if we keep on dumping acid rain into forests and leaching the soils of their basic nutrients, it seems almost certain that a boundary will be passed and forests will be unable to recover. That boundary has been passed in some areas of Europe, particularly in former Communist Block countries where there were essentially no pollution controls; those forests have been devastated and if they do come back it's going to take decades, maybe centuries, and they may not come back at all.



Forest ecologist Dave Perry in his native habitat.

World Conference of Indigenous People and the Environment I recently attended. Beliefs that have been at the human core for thousands of years are not likely to be easily buried, and I think much of the worldwide movement to protect forests arises from that deep wellspring of spiritual identification with nature. It's people saying "Wait a minute, land is more than just a commodity, we are connected to it and it to us."

But forests are also important sources of commodities, whether boards, pulpwood, or firewood. The conflict between market and nonmarket values is both widespread and, as Perlin documented in his book *Forest Journey*, ancient. Industrialism, population growth, and the global economy have greatly accelerated the pressure on forests to deliver commodities, but they didn't create the pressure—it's always been there. Throughout history, forests have been particularly vulnerable because they're essentially a big bank account that politicians and the "takers" of society find very tempting to dip into, something that will remain true as long as we have an economic system that rewards exploitation, devalues the future, and clings to the ludicrous belief that all consequent problems can be solved by doing more of the same.

BA: The issue of forest health can be a controversial one, especially among land

managers. How would you define forest health?

DP: I like Aldo Leopold's definition better than any I've seen. Leopold says ecosystem health—and he's talking about any kind of ecosystem—is essentially the capacity for self-renewal. Now, when you start asking questions about what is the capacity for self-renewal, what does that translate into?—then you get into fairly complicated scientific issues and quickly run up against how little we really know about these systems. So in confronting our ignorance, I also like what Leopold said about tinkering: the first rule of intelligent tinkering is to keep all the pieces. And so basically health is the capacity for self-renewal, and we maintain health by keeping all the pieces.

BA: Pollution from acid rain and heavy metal deposition is degrading our northeastern forests by causing nutrient depletion in soils and the accumulation of toxic metals like cadmium in fungi and in fungal browsing species. Yet our temperate forests are still considered some of the most resilient in the world. What impact do disturbances like these have on the overall resiliency of our forests?

DP: My guess is that they have impacted the resiliency significantly. Resiliency is the kind of thing that you only know

something for sure about when you see whether a system has recovered or has not recovered from a disturbance, and so it becomes certain only in the future—like many other things we deal with (sustainability, for example). But if you look at where resilience arises from, it's from a long history of adaptation to certain disturbances on the part of the species that compose the system. Often those adaptations involve cooperation among species and so forth, but basically resilience is shaped by history.

It is when a new disturbance comes along, such as acid rain—something that the system has not experienced before—that you run a great risk of pushing the system beyond the bounds to which it can adapt, in essence it loses its capacity for self-renewal. At some point, if we keep on dumping acid rain into forests and leaching the soils of their basic nutrients, it seems almost certain that a boundary will be passed and forests will be unable to recover. That boundary has been passed in some areas of Europe, particularly in former Communist Block countries where there were essentially no pollution controls; those forests have been devastated and if they do come back it's going to take decades, maybe centuries, and they may not come back at all.

In both the northeastern and western U.S., obvious pollution damage has occurred mostly in high elevation forests, or those growing on shallow soils. The ability of these systems to recover, and the spread of pollution impacts to other systems, will depend on the degree to which pollution sources are brought under control. Current trends on a global basis are not encouraging, particularly for nitrogen-based pollutants, a situation which led a group of highly respected U.S. ecologists to publish a recent paper warning of serious, long-term environmental consequences if the problem isn't dealt with adequately.

BA: Some forest pathogens and pests, including insects like the eastern spruce budworm, have changed their behavioral characteristics. Once a periodic defoliator, the budworm has actually become a chronic defoliator. What are the implications of this behavioral change? Have we passed a boundary?

DP: Oh, yes, we've passed a boundary with the spruce budworm. Basically it goes back to the issue of foreign-type disturbances, which is to say disturbances that the system is not adapted to. The budworm itself is not a foreign disturbance, but when we did things like logging out the old growth tree species, we changed the disturbance regime of the forest in such a way that trees like balsam fir which are a host to spruce budworm began to spread widely. Once the host trees have spread widely then it's like setting a lunch table for budworm, and budworm populations grow. It's exactly what you would expect ecologically.

We compounded the problem with pesticides, which certainly knocked back the budworm, at least temporarily, but also knocked back many of the predators of the budworm, and so we

wounded the ecological mechanisms that tend to keep the tree-eating insects in check. Compounding the problem even further, losses in habitat—both in the Northeast and in the wintering grounds in Central America—have resulted in large declines of neotropical migrant birds, which are important predators of forest insects; and so another leg of the control complex within the system has been weakened.

So, yes, we crossed a boundary, and we find ourselves with budworm problems that really become very difficult to get out of—very expensive, perhaps impossible until the natural dynamic plays itself out in one way or another.

BA: If forest restoration and prevention of future degradation depends in large part on a better understanding of how a healthy forest ecosystem functions, what educational structure is needed so forest landowners and managers can receive an appropriate level of education in this area?

DP: That's a very good question, one I've thought about quite a bit over the past few years. As I see it, a three-pronged approach is needed. The first two prongs require the universities to get more involved. Firstly, by enlarging the scope of extension services and outreach programs, designing them to reflect the current issues that center around managing forests as ecosystems rather than just factories for trees.

Secondly, I would like to see more universities offer short courses in ecosystem management and related topics, providing information to people in a way that is affordable, both in time and money. The Maritime Ranger School in Fredericton, New Brunswick, provides an excellent model of how that might be done. Under their auspices, I've taught eight 3-day ecosystem management courses throughout Atlantic Canada. The Ranger School also offers short courses in things like landscape ecology, landscape design, and systems-level planning. At Oregon State, we're initiating the equivalent of a full quarter course in ecosystem management, but held over a 2-week intensive period so that working people can attend. Maybe a lot of this sort of thing is happening in universities now, I don't know; if it isn't, it should be.

The third prong is learning from one another, which means networking and field trips to see what people are doing on the ground and to discuss



Learning from one another means networking and field trips. Photo © Barbara Alexander

What ecosystem management strives to sustain are habitats for all indigenous species and the health of the overall system—that is, all the processes that come together to confer on the system the capacity for self-renewal. One word that has been used to describe this is integrity. Ecosystem management strives to maintain the integrity of forests, 'integrity' meaning all the indigenous species, all the processes operating within proper bounds.

strengths and weaknesses of various approaches.

BA: Ecosystem management is driven by explicit goals which differ from those of stand-level management. Would you outline or summarize these goals?

DP: Of the goals that you see most often mentioned for ecosystem management, the one that tops the list is always sustainability. Society, through ecosystem management, is coming to grips with the issue of sustainability. Sustainability by itself doesn't tell you much, so the next thing you have to ask is: sustaining what? And then the goals get more specific.

What ecosystem management strives to sustain are habitats for all indigenous species and the health of the overall system—that is, all the processes that come together to confer on the system the capacity for self-renewal. One word that has been used to describe this is integrity. Ecosystem management strives to maintain the integrity of forests, 'integrity' meaning all the

indigenous species, all the processes operating within proper bounds.

One thing ecologists have discovered over the last 15 years or so is that, if you're interested in the dynamics of an ecosystem, you can no longer focus only on a given piece of ground. Every stand of trees, for example, is a part of a larger landscape, and the landscapes are part of regions, and regions are a part of a globe and all of these things come together to influence what goes on on any one piece of ground, and sometimes influence it very significantly.

Acid rain is an example of that, global climate change is another. Another large-scale concern is habitat for wide-ranging species. In western North America the spotted owl is the exemplar, but there are many others. In the Northeast, pine martens are good examples of species that, if you're going to maintain healthy populations, you have to think in terms of areas much larger than foresters are accustomed to

think about. So ecosystem management has made explicit the goal of dealing not only with stands but with landscapes and regions. That brings on, then, the importance of cross ownership, cross boundary kinds of interactions. And so another objective of ecosystem management is to bring together multiple ownerships within an area of interest and to strategize together in order to achieve common goals.

BA: What you've been referring to is how ecosystem processes operate over a broad range of temporal and spatial scales. As we move from stand-level to landscape-level management, we also move from the short term to the long term in forest time—which means thinking not only in a time frame of decades, but in a time frame of centuries. What changes in current management practices need to be made to manage on the landscape and century scales?

DP: Managing on the scale of landscapes means that in order to meet landscape objectives you have to ask 'What are the landscape level processes we need to be concerned about maintaining?' There are three in particular that come to mind. One is habitat. Habitats for most species must be maintained on landscapes, so if we're looking at maintaining a habitat for pine marten then we need to think on a scale of thousands and thousands of acres.

The second is the spread of disturbances. We talked a little bit earlier about spruce budworm; you can also talk about disturbances like fire or pathogens. Anything that moves, moves through space. And anything that moves through space is affected by the structure of that space. So the structure of the forest has a great deal to do with the ability of disturbances to move through it. One of the things we've seen in the Pacific Northwest—and the same, I'm sure, is true in some areas of the Northeast—is that many of the natural forests were pretty resistant to crown fires, but have been converted to forests that are highly susceptible to crown fire.

The third landscape level issue is hydrology. When you think about hydrology, the movement of water, then you must think in terms of landscapes.

Logging for the Marten

Sturtevant, Brian R., John A. Bissonette, and James N. Long. "Temporal and Spatial Dynamics of Boreal Forest Structure in Western Newfoundland: Silvicultural Implications for Marten Habitat Management." *Forest Ecology and Management*, 87 (1996): 13-25.

Due to widespread clearcutting, Newfoundland's spruce-fir forest, like Maine's may be undergoing a shift from the domination of mixed-age, old-growth stands to the domination of younger, more uniform stands. "Because the Newfoundland marten appears to be particularly dependent on structure associated with old-growth forests, this transformation is probably one of the main factors contributing to the marten's decline on the island." Since it will be "decades" before recently logged forests become suitable habitat for marten and since further logging is planned, the authors propose a stand density management strategy that would replicate the structure of older forests and that, incorporated into a landscape-level management approach, could be used to maintain the marten.

from Eastern Old Growth Notes

Simplified Gene Pools

Buchert, George P. et. al. "Effects of Harvesting on Genetic Diversity in Old-Growth Eastern White Pine in Ontario, Canada." *Conservation Biology*, 11, no. 3 (June 1997): 747-758.

Buchert et al. analyzed and compared the gene pools in two adjacent stands of white pine before and after they were logged. The stands were in a 250 ha area scheduled for logging within the Galloway Lake Old Pine Area about 100 km north of Sault Ste. Marie. They were composed of supercanopy white pine, averaging 250 years in age, and a mixed conifer and hardwood understory. Silviculturists had decided to spare residual trees, 15 m apart in stand A and 20 m apart in stand B, in the hope of encouraging natural regeneration and maintaining old growth structural characteristics while removing timber. Half of the residual trees were chosen for seed production, half for old growth characteristics.

Nevertheless, when logging occurred, each stand experienced a "substantial loss of genetic diversity." The stands lost 80% of their rare alleles (varying forms of a gene) and about 40% of their low frequency alleles. "Genetic diversity losses of 25% or more may be common when forests of this type are harvested at these intensities."

from Eastern Old Growth Notes

In the Northeast, pine martens are good examples of species that, if you're going to maintain healthy populations, you have to think in terms of areas much larger than foresters are accustomed to think about. So ecosystem management has made explicit the goal of dealing not only with stands but with landscapes and regions. That brings on, then, the importance of cross ownership, cross boundary kinds of interactions. And so another objective of ecosystem management is to bring together multiple ownerships within an area of interest and to strategize together in order to achieve common goals.

And again, the pattern of forest types that you put out on the landscape will influence hydrology.

In terms of time, and stability over time, the basic concept that has emerged over the last ten years is that of biological legacies. Now let me emphasize: when I use the word stability, I don't mean no change. The idea that forests are stable in the sense that they don't ever change is just not true. All forests change to one degree or another and all forests are disturbed to one level or another. Stability boils down to retaining the capacity for self-renewal, which is where biological legacies come in. "Biological legacy" is a term Jerry Franklin applied to components of the system that survive disturbance and act as foci for the recovery of the rest of the system.

A good example is shrubs and trees that can sprout from roots after above-ground parts are killed. These send up new shoots which soak up nutrients and keep them from being leached to streams; the reborn plant stabilizes soils and pumps photosynthates to the myriad soil organisms that require plant carbon to survive. Legacy plants become centers of biological activity. Birds land in their branches and defecate seeds.

Pioneering work by some of my former students—Mike Amaranthus, Sue Boudreau, Suzanne Simard—has shown that newly establishing seedlings find a rich biological and chemical environment in the soils around these legacy plants, and that interconnections form via mycorrhizal hyphae, through which carbon and nutrients flow from one plant to another.

Another example of a biological legacy that is especially relevant to forestry is big dead wood. Big dead wood has multiple important ecological roles, including acting as a biological legacy which allows certain species of invertebrates and microbes to survive fire.

We used to say that a clearcut mimics a natural disturbance. A clearcut in no way mimics a natural disturbance other than the fact that it opens up the canopy and lets light down to the forest floor. A clearcut takes away a lot of wood, it takes away many of the legacies that would have persisted through a natural disturbance.

So, now, if we look at this issue from a scientific standpoint, in order to give good guidance to management, one of the central concerns we're facing is, O.K., we need to learn more about this biological legacy of big, dead wood, and exactly what it does, and exactly how important it is to the recovery of the system, and how much we need to leave

out there in order to not disrupt the capacity of the system to renew itself. Experiments to clarify these questions are going on now, but it's still early in the ball game.

My own feeling is that you can take wood off of a system without disrupting its capacity for self-renewal, but you also need to leave some out there or you will eventually disrupt that capacity. So, the question now is, how much, and that's what we have to learn. But it's going to be a long time before experiments yield definitive knowledge, not only with regard to the function of big dead wood, but for many of the questions surrounding maintenance of ecosystem integrity. In the meantime, best judgments must be made.

BA: The concept of dead wood being the life of the forest. . .

DP: Actually that's quite true, and a very good way to put it. Studies have been done looking at changes in nutrient composition as logs decay. Consider two of the most essential nutrients, nitrogen and phosphorus. In the bole of a living tree, the ratio between nitrogen and phosphorus is about 80 to 1. In an old decaying log that's been down on the ground for about 120 years, the ratio of nitrogen to phosphorus is about 25 to 1, which is very close to that of a living cell.

What that says to me is that there are far more living cells in an old decaying log that's been down for 120 years than there are in the bole of a living tree. When you look at an old log, at least out in the western U.S. or western Canada, that's easy to understand because they're great water reservoirs. The western systems tend to have droughty summers, and so where the water is, is where the life is.

BA: Prior efforts to preserve biological diversity have focused on a relatively small number of species, subspecies, and populations of plants and megafauna, yet the lesser organisms like bacteria, invertebrates, and fungi make up about 90% of the total of all species and carry out critical ecosystem functions. Will these organisms be conserved for the long term only if ecosystems are conserved?

DP: A very good question, and one that's impossible to answer precisely, because we simply don't have the knowledge. But there is no doubt in my mind that if we do not manage ecosystems, we're going to lose some of these organisms. What that translates into in terms of ecosystem function is another



Dead wood is the life of the forest. Photo © Barbara Alexander

question. I think there's a reasonable chance that over the long run if we erode the diversity of these little critters—E. O. Wilson called them 'the little things that run the world'—eventually we erode the resilience of the ecosystems that we're managing.

Now nature is very robust, and there are presumably a lot of backup safety systems; however we're really getting into questions of how ecosystems are wired up, how do they work? What do each of these little species out there contribute? How much overlap is there between them in their function?

These are questions of redundancy versus keystone-ness, something that ecologists debate fairly hotly. Some believe there is plenty of redundancy in nature, others believe that there is no redundancy at all, that everything does a unique job. I come somewhere in between those two. I believe there is redundancy, but it is not limitless. And so as we erode diversity, we set ourselves up for what several scientists have very aptly called 'unpleasant surprises.'

It's like having a six-legged stool—you pull one leg off and the stool stands up and you say 'Huh, that's interesting' and you pull another leg off and the stool stands up and you say 'Oh, well, legs don't make any difference to the stool standing up.' But that's not a valid con-

clusion, something we discover to our surprise when the stool falls down. With regard to the erosion of diversity and long-term stability of ecosystems, scientists don't know how many legs it takes to hold the stool up, and there's a good chance we will never know. Aldo Leopold had it right when he said "keep all the pieces."

A lot of evidence has accumulated over the years that more complexly structured systems support a greater diversity of both big and little species. The work that Tim Showalters of Oregon State University has done both in the eastern and western U.S. shows that old growth forests tend to support a much greater diversity of spiders in their canopies than young plantations. Old growth forests also have a much more favorable ratio of predatory insects to tree-eating insects than young plantations. George Carrol and his students at the University of Oregon find that elder trees have a significantly greater diversity of foliar endophytes than young trees, and young trees near their elders have a greater diversity than young trees distant from elders, another kind of legacy effect. (Foliar endophytes are microfungi that live symbiotically in plant leaves and help protect their hosts against pests and pathogens.)

The evidence from these and many

Bats

Krusic, Rachel A. et. al. "Bat Habitat Use in White Mountain National Forest." *Journal of Wildlife Management*, 60, #3 (1996): 625-31.

In 1992 and 1993 the authors surveyed the foraging and feeding activity of bat species in [the] White Mountain National Forest. They found that bats use a matrix of various forested and non-forested habitat including aquatic habitats. "The probable use of overmature stands for roosting, and openings for feedings, indicates that the habitat requirements of bats are associated with those found in pristine forests. Bats presumably used large dead and dying trees as roost sites, and openings from natural disturbances as feeding sites." The authors believe that logging may create usable openings, but that areas of older forest must be retained to provide roost sites.

from Eastern Old Growth Notes

Old growth forests tend to support a much greater diversity of spiders in their canopies than young plantations. Old growth forests also have a much more favorable ratio of predatory insects to tree-eating insects than young plantations. George Carrol and his students at the University of Oregon find that elder trees have a significantly greater diversity of foliar endophytes than young trees, and young trees near their elders have a greater diversity than young trees distant from elders, another kind of legacy effect. (Foliar endophytes are microfungi that live symbiotically in plant leaves and help protect their hosts against pests and pathogens.) The evidence from these and many other studies points toward prudent behavior if our objective as a society is sustainability.

other studies points toward prudent behavior if our objective as a society is sustainability. Prudent behavior demands that we don't lose any species, small or large, which translates into protecting their habitats within managed forest landscapes. Even when we focus on the little things, we are led back to landscapes and regions. I often begin talks with two slides, the first of the earth from space and the second an electron micrograph of fungal hyphae within a soil aggregate. The message is that, if we want to sustain our life support systems, our thinking must stretch from the very large to the very small.

BA: So we move from the landscape scale, to the micro scale, to the history scale. I'd like to ask you a question about pre-settlement forests. The regional ecosystems of our northeastern forests have been forever altered because of industrialization and excessive timber harvesting. How close to pre-settlement forest conditions could we come using a combination of ecosystem and non-management strategies? And, should we try?

DP: Yes, we should move the forest back toward pre-settlement conditions, with the emphasis on "toward." Whether we could recreate exactly what was here before, or would even want to, is another question. The Acadian forests particularly are very different now than they were 100 years ago, 200 years ago. They are much less stable if you talk about stability in terms of their ability to resist insects and other stresses, and they are much less diverse. It

may be impossible to ever go back to what they were exactly.

But I don't think that should be a concern, what we should be doing is diversifying the species again, reintroducing some of those that were once very important in the system and have dropped out to a large degree—the white pines, the hemlocks, the late successional hardwoods. My feeling is that management can be an aid to this. If the goal is clearly envisioned, then management can be designed that helps attain that goal. This is not to say that every piece of ground should be managed. It shouldn't. But it is to say that management done right, with a clear vision of where society wants to go and an understanding of basic ecological principles, can be a positive thing.

BA: As our knowledge base changes we will need to make short-term decisions for long-term planning or goals. Would you comment on how ecosystem management represents adaptive management?

DP: As I understand it there are two central ideas to adaptive management. One is that you maintain the options to adapt, and maintaining the options to adapt means essentially that you maintain diversity. The second idea is that, again, you have a clear vision of where you're headed and what you need to achieve on the landscape so you can come back and look and see if what's been done is taking you in the direction you want to go. So adaptive management is retaining the ability to adapt, and collecting the information that tells

you when adaptation is necessary.

All this is easily said, it's more tricky to do. You can argue that once you have cut a single tree out of the forest, you have, to a certain degree, foreclosed an option for the future. There's truth to that argument, but it's also a plain fact that we're going to be taking products out of many of these forests. What we need to do is to figure out ways to take those products out without closing the door on being able to adapt and do things a different way.

My own feeling is that once you clearcut a forest, you've lost options to have big trees out there again for 50 years, 100 years, 150 years, or 200 years, depending on where you are, and so that really has closed the door on that part of the forest where you have cut away those big trees. Which is not to say you can't cut big trees, but if you cut some and leave some then you have left options out there for yourself.

BA: We've talked a bit about limits to our understanding—ecosystems have been described as moving targets with futures that are uncertain and unpredictable. So, ecosystem management must also be experimental to some degree?

DP: Oh, yes—every piece of management is experimental to some degree in the sense that we really have a limited predictability about where nature may take the things that we try. And so we're getting out there and we're mucking around and we've been doing that for the last 100 years in forestry. What we are now looking at in ecosystem management and adaptive management is formalizing that experimental aspect more so that through our experimentation, through our trying things, we can come back and look and we can learn from it, and from what we learn we can improve what we do.

My own feeling is that experimenting with different management approaches is a good thing—it's how we learn. But prudent behavior dictates the need for guidelines; filling landscapes with an experiment that fails would not be good. One rule of thumb I favor is the more a given management approach departs from the natural forest structure, the less area it should occupy (at least until its stability is established, which could take decades or centuries). This is quite the opposite of what forestry has been doing during the 20th century, which is widespread conversion of whole regions to forests that differ in fundamental ways from the natural. Of course, forestry during the 20th century

was designed to meet society's demand for wood, and if society now demands other values from forests, the appetite for wood is going to have to be controlled.

BA: By what criteria will the effectiveness of ecosystem management be judged?

DP: Three criteria: It will be judged by its success biologically and ecologically—that is, its success in maintaining habitat and maintaining the integrity of systems. It will be judged by social acceptance. And it will be judged economically. And, you know, the bottom line in our economic system is that somebody's got to pay for it. On public lands, the people at least have the option to pay for part of the cost of managing ecosystems rather than just managing trees. There's a lot of precedent for that. For a lot of years the people subsidized building roads into western forests to cut them down; now on public lands we should be thinking of subsidizing the maintenance of biodiversity and system resilience.

On private lands, it's another issue. There are private landowners who are not all that interested in how much money they can make, they want to make some money, and they want to maintain, to the extent they can, a forest that's aesthetically pleasing. Large industrial landowners march to a different drummer, obviously, and ecosystem management is going to be judged on its ability to pay for itself on these large industrial lands.

One of the things that we have learned in ecology, and in landscape ecology in particular, that translates directly into ecosystem management, is that not every piece of ground has to do the same thing in order to achieve our goals of preserving diversity and resilience and so forth. Because it isn't necessary that the same thing be done on each piece of ground, there's some leeway for one kind of management in one place and another kind of management in another place, so long as the types of management and the places in which that management are done are chosen intelligently. And by that I mean bringing all the knowledge that we have to bear on answering the question, 'Does this achieve our goals or not?'

In areas like the western U.S. where there is a lot of public land which to a large degree carries the water for species preservation, pressure is released from the private lands. Private lands still have responsibilities in maintaining for-



Complexity. Photo © Barbara Alexander

Invertebrates and Old Growth

Niemela, Jari. "Invertebrates and Boreal Forest Management." *Conservation Biology*, 11, no. 3 (June 1997):601-10.

After clearcutting of boreal forest, the number of invertebrate species in the forest may increase, but old growth specialists that live in microhabitats such as coarse woody debris and wet swamp-forest tend to disappear. The species most vulnerable to the homogenization of habitat are those restricted to old growth, such as the cybrine species *Scaphinotus marginatus* of Canada. To maintain boreal forest biodiversity, the author suggests establishing large, representative reserves; modeling logging practices on natural regimes; and restoring habitats. However, he notes that recovery of species presupposes "that colonists are available, which may not always be the case." His article concentrates on Fennoscandia, but as he notes, likely applies also to other parts of the boreal zone.

from *Eastern Old Growth Notes*

est integrity, there's no question about that, but for many species the burden of carrying habitat probably can be done on public land. If you go to a place like the Northeast where there are many fewer public lands than in the west, it becomes much more difficult, in theory, at least, to balance the issue of species preservation and maintaining system integrity with economics. But the fact that it's difficult doesn't mean it can't be done. Already there are certain market tools swinging into place to help that happen, especially green certification.

So it truly is a biological, social and economic package that we're dealing with, and all those things are going to have to work together. In order to choose the balance, for example, between economics and biology, we really need to be clear about our goals. We need to be clear about the thresholds in the system and how far they can be pushed, and we need to get comfortable with the idea that sustainability requires leaving and giving back as well as taking. And we have to be very clear about this business of uncertainty, something that is seldom if ever translated into the economics of natural resource management. Everyone who can afford it goes out and buys some insurance—this is a hedge against uncertainty. We don't think twice about why we pull some money out of our pocket to buy insurance; it's obvious to us why we're doing that. We need to translate that concept into managing natural ecosystems. It may cost something, in terms of short term profits, in order to maintain more diversity in the system and help buffer it against disturbances and unexpected surprises. But that cost is a legitimate cost of insurance; it's the only insurance that we can buy in forestry—maintaining complexity, drawing on the mechanisms that have evolved in nature to maintain integrity, preserving those mechanisms, enhancing and restoring them where necessary. We should count that as part of the legitimate cost of doing business.

Old Growth Varied and Dynamic

Foster, D.R., D.A. Orwig, and J.S. McLachlan. "Ecological and Conservation Insights from Reconstructive Studies of Temperate Old-Growth Forests." *Trends in Ecology and Evolution*, 11, no.10 (1996): 419-24.

The key insight gained from retrospective studies of old growth, using dendroecological, paleoecological, historical, and other approaches, is that old growth ecosystems are often extremely varied and dynamic. Strategies for preservation and restoration must therefore accept and anticipate change. Maintaining many natural ecosystems requires protecting both "current old growth areas" and "naturally disturbed forests that represent future old growth." The landscape preserved must be large enough "to allow for the continuing mosaic of disturbance and for the dispersal of organisms and processes among patches."

from Eastern Old Growth Notes



Disturbance in a high elevation softwood stand. Photo © Spencer Newman

Loon Mountain Ski Area Violated Clean Water Act

RESTORE: The North Woods and Roland Dubois have filed legal documents showing that Loon Mountain Recreation Corporation (LMRC) violated the Clean Water Act and a court order by pumping more than 43.6 million gallons of water into pristine Loon Pond from the East Branch of the Pemigewasset River during a 27-day period. Loon Pond is a municipal drinking water source of the town of Lincoln, NH. The ski resort could be fined more than \$850,000.

On December 19, 1996, the US Court of Appeals for the First Circuit ruled that the transfer of water from the East Branch to Loon Pond by LMRC was illegal. With the issuance of the court decision, LMRC should have stopped all pumping of water to Loon Pond. By its own admission, however, the ski area continued water transfers for at least another 27 days. According to one scientist, the transfer of water from the East Branch to Loon Pond is altering the water chemistry of the

pond, including increases in nutrients and salt content. This is because river water can contain various pollutants not present in Loon Pond—such as heavy metals, exotic plants and animals, and human pathogens—as a result of road run-off and other human activities.

LMRC was fully aware of the implications of the Appeals Court ruling. According to a February 8, 1997 news report, the lawyer representing Loon gave an overview of the Court's decision, including acknowledgment that a permit was required to transfer the water. Despite this clear understanding, LMRC continued to transfer water from the East Branch to Loon Pond.

"The failure of the US Forest Service and the State of New Hampshire to protect and safeguard a municipal water source by enforcing the law is very disturbing," said David Carle of RESTORE.

LMRC first proposed expanding the ski area in 1986. The Forest Service

prepared a number of review documents that were deemed inadequate or improperly prepared. On April 14, 1993, the Forest Service released the Final Environmental Impact Statement (EIS) outlining the proposed expansion. RESTORE, along with four other organizations, administratively challenged the FEIS findings. After the Forest Service denied the appeal, RESTORE and Roland Dubois, a private citizen, successfully challenged the EIS in federal court.

According to federal law, if LMRC is found to have violated the Clean Water Act, the corporation is subject to a civil penalty "not to exceed \$25,000 per day for each violation." The ski resort has admitted to transferring water from the East Branch to Loon Pond during a 27 day period. A final decision on possible fines is due in the next several months.

—From a press release from RESTORE: *The North Woods*, October 29, 1997

Adirondack Park Report

by PETER BAUER



This installment of the Adirondack Park Report focuses on land acquisition in New York State, specifically how it will be affected in the Adirondacks by the revision of the New York State Open Space Conservation Plan underway. In addition updates on the negotiations to purchase Little Tupper Lake and the Champion lands are provided.

A Blueprint for Land Protection

As this issue of the Northern Forest Forum goes to press, public hearings were being held on the revised draft New York State Open Space Conservation Plan ("Open Space Plan"). This plan is the blueprint through which land is purchased in New York State. If a project is not listed in this plan it cannot be funded and purchased. This plan is based on legislation passed under the Cuomo Administration in 1990 that included such things as the "local veto;" local town governments were given authority to veto state purchases of a given property in its town boundary. No legal challenge has been made against this part of the legislation, but many have speculated that town governments do not have authority to disallow an individual's land sale. The Open Space Plan provided the basis for the creation of the Environmental Protection Fund (EPF) in 1993. Inclusion of land acquisition moneys in the EPF held up passage for years. Today, no land can be purchased with EPF moneys unless it is listed in the Open Space Plan. The open space plan is revised every two years, though it has only been revised once since the original plan was signed by Governor Cuomo in 1992.

The draft Open Space Plan lists 123 projects across New York State. Twelve projects in the Adirondacks are listed, of which eight are for specific projects (seven of which have sellers who are very interested in selling to the state). Listed projects include potential acquisitions for both Forest Preserve and conservation easements. Listed projects include the following:

Blue Mountain Lake shoreline and islands. This project includes nearly 1,800 acres of undeveloped shoreline and islands on Blue Mountain and Utowana lakes. Over 400 acres would be purchased for the Forest Preserve, including seven islands on Blue Mountain Lake and 350 acres on the north shore, which includes Castle Rock, a short, popular hike with great

views of the Ekford Chain of Lakes and the Blue Ridge Wilderness. A conservation easement would also be purchased on the approximately 1,200 acres along the north shore of Utowana Lake.

Floodwood Parcels. This project includes two tracts on ponds just south of the St. Regis Canoe Area. The first is a 120-acre parcel of undeveloped shoreline on the west side of Rollins Pond. The second includes an undeveloped 240-acre site on the west side of Pine Pond. Both are Forest Preserve inholdings. Purchase of these lands consolidates existing Forest Preserve holdings and make it possible to expand the St. Regis Canoe Area to include at least three lakes and ponds.

The Tahawus Tract. A 12,000-acre tract formerly owned by National Lead Corporation which was the last of a number of companies to run an extensive titanium mining operation on the banks of the upper Hudson River north of Newcomb from the 1830s through the 1980s. The tract adjoins the southern High Peaks Wilderness area and includes the Tahawus entrance to the High Peaks along Calamity Brook or through Duck Pond. The mine site is now abandoned, but may include hazardous materials that require remediation. The current owner, the Kronos Corporation of Texas, is currently in negotiations with the state and the Open Space Institute about liability issues. Pending resolution of this issue a deal that includes a mixture of Forest Preserve and conservation easement purchases has been formulated by Open Space Institute. This tract also includes the Preston Ponds and Henderson Lake.

Pilot Knob Mountain. This 400-acre tract will provide vastly improved access to the summit of Pilot Knob on the southeast side of Lake George. This would be a Forest Preserve acquisition.

Whitney Park. The entire 51,000-acre Whitney Park is listed for Forest Preserve acquisition. Discussion for purchase of the northern 15,000 acres surrounding Little Tupper Lake are ongoing. Mrs. Whitney has set December 22, 1997 deadline for the state to negotiate complete a deal to purchase these lands.

Follensby Pond. Follensby Pond is listed as an eligible project, though no negotiations are currently occurring on this important tract.

Massawepie Mire. This project is listed in the revised Open Space Plan

though it is just about complete. Governor Pataki announced the purchase of this tract last Spring.

Minnehaha tract. As everyone knows, the best way to get to Ha-de-ron-dah is through Minnehaha. The 1,000-acre Minnehaha tract will provide new access to the Ha-de-ron-dah Wilderness, just west of Old Forge. This tract includes several miles of shorefront land on the banks of the North Branch of the Moose River (as well as new sites where for canoe trips where paddlers launch upstream and return via a scenic railroad trip). The tract includes land on both sides of New York State Route 28.

In addition to these eight specific projects, four generic categories for potential land projects are also included: working forest lands; undeveloped Lake George shoreline; Lake Champlain wetlands and shoreline; and the Raquette River. Working forest lands covers a broad category of commercial forest lands where the state would purchase conservation easements for the development and recreation rights (the state has expressed an interest in purchasing just the development rights in some areas). The undeveloped Lake George shoreline category includes a number of projects to protect scenic shoreline along Lake George. The Lake Champlain wetlands and shoreline; includes a number of specific smaller projects, including Bulwagga Bay, Huckleberry Mountain Marsh, South Bay, Dead Creek, among others. Last, the Raquette River category includes projects along an approximately 25-mile section. This includes the 12,000 acres currently owned, and for sale, by Niagara Mohawk Company among others.

While the Open Space may seem as if it list a number of potential projects, it is deficient in many ways. First, many projects such as the Dead Creek in Piercefield, Round Lake in Long Lake, undeveloped Hudson River shorefront, Forest Preserve inholdings, Madawaska Pond and bog, boreal habitat lands, among others are not listed and need to be. Secondly, the plan recommends some dubious ideas such as passing a constitutional amendment that will give the Commissioner of the Department of Environmental Conservation sole authority to swap detached tracts of Forest Preserve for other lands in the Park. The plan is also weak in other areas where widely advo-

cated measures to prevent timber rustling on Forest Preserve lands are not endorsed.

Down to the Wire on Whitney Tract If the Pataki Administration musters the necessary political will and Marylou Hendrickson (formerly Marylou Whitney, prior to her recent marriage to John Hendrickson) restrains her greed, there may be a public acquisition of Little Tupper Lake before Christmas. Last July, Mrs. Hendrickson agreed to sell an option to the Nature Conservancy on Camp Bliss, an isolated inholding on Little Tupper Lake. This option would only be honored if the Nature Conservancy, acting in coordination with the State of New York, purchased the 15,000 acres surrounding Little Tupper Lake by December 22, 1997. If a deal is not concluded, Mrs. Hendrickson has stated it's full steam ahead with her plans to ring the lake with luxury private camps.

Negotiations have been ongoing since August. Mrs. Hendrickson's marriage, to John Hendrickson, 39 years her junior, stalled the negotiations for better than one month. Just after the first of December negotiations intensified. The main issue continues to be price. Mrs. Hendrickson has moved little from her claim that property is valued at \$2,000 per acre, thereby \$30 million for the entire tract. Three different certified appraisals have been done on the property and the highest it has been valued is \$1,000 per acre. Mrs. Whitney is holding out for more. Under state law, the state can pay no more than the appraised fair market value, though the law does allow for the state to pay more for very important parcels.

The state has been paying dearly in other parts of the state for rare open space lands. The 15,750-acre Sterling Forest, that straddles the New York-New Jersey border, will be purchased for \$55 million with funds provided by the Land and Water Conservation Fund, the State of New Jersey, and New York's EPF. This land is less than an hour from New York City. 5.2 acres of beach front on Oyster Bay in Long Island was recently sold to the state for \$6 million. 24 acres connected with the St. Francis Seminary on Staten Island was sold to the state for \$10 million. 189 acres connected with the Albany Pine Bush was purchased by the state for \$4.6 million. Because Whitney Park, and Little Tupper Lake, connect canoe routes—

north-south, east-west—it qualifies for higher than the appraised real estate/timber value, but not the exaggerated numbers Mrs. Hendrickson and her new husband are commanding.

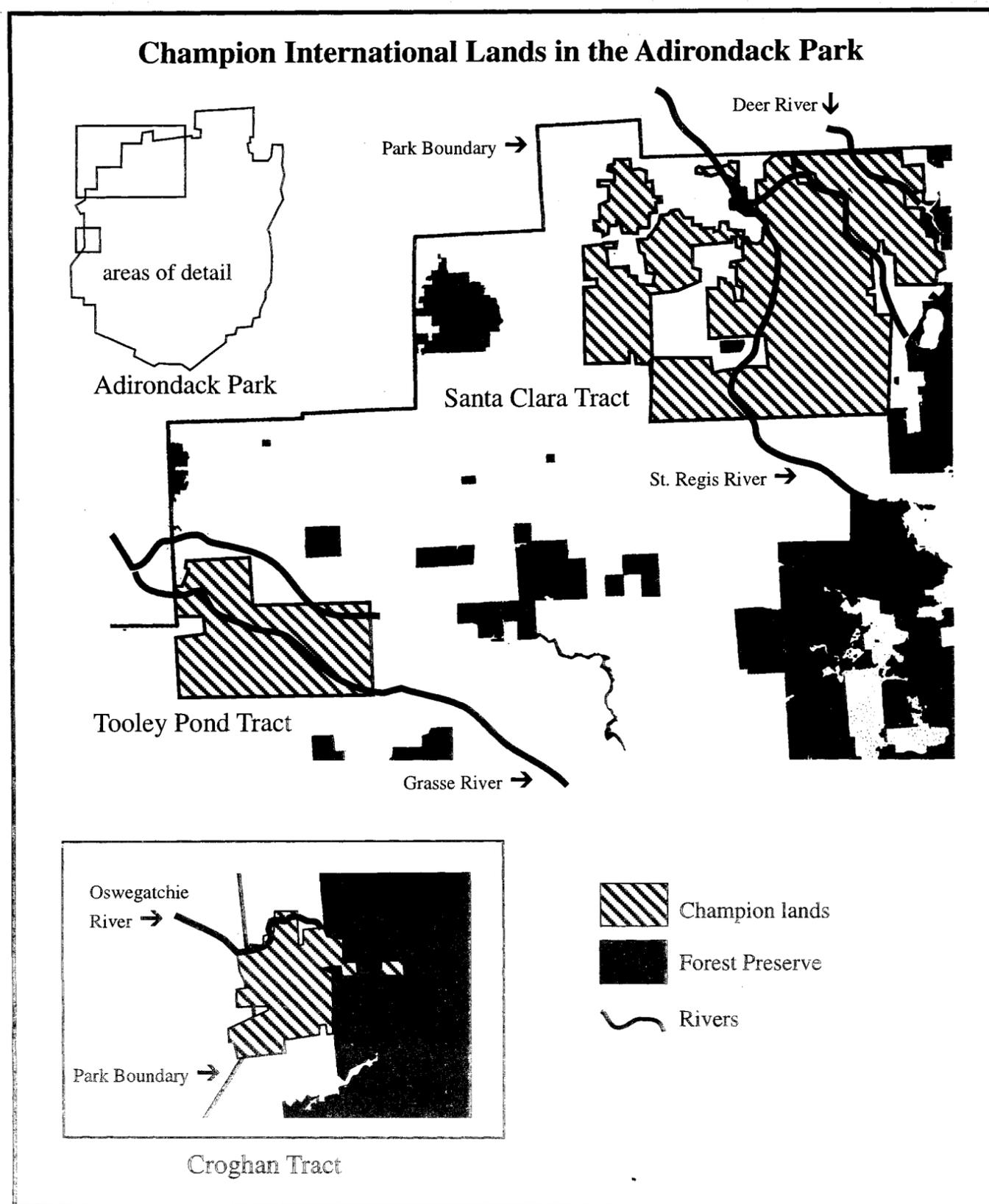
The fight to save the Sterling Forest from imminent development plans was waged over more than 20 years against a series of owners all of whom cooked up new development plans, and eventually culminated in the state purchase, which should be completed in 1998. Whitney Park is bigger than Sterling Forest in many ways, only it lies not one hour from New York City, but at the heart of the Adirondacks. While Sterling forest was saving the last bit of unbroken forest on the east coast urban sprawl, Little Tupper Lake would connect pieces of wild forest and is an important piece, a cornerstone, for a new 400,000-acre wilderness system. If Little Tupper Lake is developed into building lots for luxury camps, the Adirondack Park will be significantly injured. The possibility of new wilderness canoe routes will be eliminated (yet more extirpated wilderness).

If Little Tupper Lake is developed, it undermines the value of the remaining parts of Whitney Park (the other 36,000 acres) and the Hendricksons seem to be slowly figuring this out. Though the public line from the Hendricksons has been that they'll get their money either way: from the state or from development. Governor Pataki genuinely seems to recognize the value and importance of protecting wild lands and aquatic communities. He also sees the political value of buying this land and winning a high profile environmental issue. Conversely, the Hendricksons want to be shown the money and they want it in their pockets.

Discussions will probably go down to the wire.

State Leaders Begin to Look at Champion Lands Two months ago, Champion International Corporation announced it planned to sell all of its 144,000 acres in New York, all but 2,000 acres of which are located within the Adirondack Park. Champion also has a mill in Defereit that specializes in low grade coated stock and processes mostly softwoods; Champion only supplied about 10-percent of the Defereit wood supply from its Adirondack lands. Champion has been adamant that it plans to sell the mill and the land separately. Champion has announced that it will consider state purchase of its lands, but is looking to other timber land owners as well.

International Paper Company, Fountain Forestry, southern timber land investors (many of whom are buying land in the Adirondacks), Clerical Medical, and John Hancock, among others, are all looking at the Champion lands. Generally the lands are in good shape (sharp limitations on clearcutting in the Adirondack Park under the Adirondack Park Agency Act contributed to this). About two-thirds of these lands are northern hardwood forests, the other third is low elevation boreal forests dominated by spruce-fir communities, bogs, river systems and wetlands. The boreal lands are unique in New York and very little of the low elevation spruce-fir boreal systems in the Adirondack Park are protected in the Forest Preserve. The Champion



land sale presents a great opportunity for New York to acquire and protect significant portions of this boreal habitat.

The majority of the boreal lands owned by Champion are found in the southern sections of the Santa Clara tract. There the St. Regis River area expands into one of the biggest and most sensitive wetlands in the Adirondacks. This area is very close to the Madawaska Pond and bog area, one of the biggest bogs in the state, located in the southeast section of the Santa Clara tract.

In addition to the rare boreal habitat, the Champion lands contain great stretches of navigable rivers, some of the finest in the Adirondacks. Throughout the Adirondack Park public access to many of the Park's most spectacular rivers has been thwarted because access areas have been privately owned and, until recently, the state prosecuted anyone who put-in on rivers at bridges (taking advantage of public road right-of-ways). The St. Regis River is a classic example. The river is navigable at its source, Upper St. Regis Lake, where there is ample public access, many use Paul Smiths College. From there the St. Regis flows through Forest Preserve, but public access is unavailable from roads. For the next 40 miles the St.

Regis flows through private lands, including the Champion lands. Anyone who paddles out of Upper St. Regis Lake has no place to stop or land their canoe, without trespassing, until the hamlet of Santa Clara.

If the Champion lands are purchased along the St. Regis River, this would provide public camping areas about one-half way between Santa Clara and Upper St. Regis Lake. This would open up one of the most spectacular river systems in the Park for canoe trips. A similar scenario exists for the South Branch of the Grasse River that flows for over 21 miles through the Tooley Pond tract. This stretch of river is dominated by long stillwaters, water falls, and brief rapids. The public has had difficulty getting access to this river because the entry points are all privately owned, and where a road crosses the river it's not navigable. Legal take-outs have also been a problem.

Many are pushing New York State to purchase put-ins and take-outs as well as a minimum of one-quarter mile along the river corridors. A one-quarter mile wilderness buffer surrounded by sustainably managed, uneven-aged forests should prevent the beauty strip phenomenon so well described in Mitch Lansky's book about the rivers in Maine, *Beyond the Beauty Strip*. All told;

Champion owns more than 100 miles of river corridors. The State has expressed interest in protecting river corridors and some boreal habitat. Officials at the Department of Environmental Conservation have stated they are concerned about taking land out of forest production, and are leaning heavily towards conservation easements, rather than Forest Preserve acquisition. Much more work needs to be done to convince the state to pursue an ambitious deal that protects rare habitat and greatly expands recreational opportunities.

Money is not the problem. The 1996 Bond Act contained \$150 million for land acquisition that either protects water quality or provides improved public access. Purchase of the Champion lands accomplish both. A willing land seller is not the problem. Champion is clearly a willing seller. The missing piece is the political will of the Pataki Administration to buy land, especially Forest Preserve, in the Adirondack Park. Buying such high profile tracts as Little Tupper Lake and the important parts of the Champion lands could be a big winner for the Governor. I can only hope that successes with land protection will stimulate a greater interest in the Adirondacks by Governor Pataki.

Local Control & the Champion Land Sale

by Andrew Whittaker

In 1990, the town of Stratford, NH voted on whether to accept adding the former Diamond lands of Stratford Bog held by Lyme Timber to the National Forest (approximately 7000 acres). By three votes, town voters rejected the Forest Service and effectively acceded to ownership and control by North Country timber operators who subsequently liquidated large portions of the holding.

The Forest Service represented the greater evil to one half the voters (plus three). The Forest Service exemplifies the mess of democracy: public quarrels and court battles between environmental and industry interests; special interest influence and bureaucratic intransigence. Private ownership on the other hand is perceived to offer continued public access for hunting and recreation as well as economic contribution to the woods product economy.

In practical terms, however, "local control" on lands discarded by disinvesting paper companies meant resource use to the point of abuse; wholesale timber extraction for profit in commodity markets; and a rather blithe assumption that future generations, like the dead, can care for themselves.

Travelers along Route Two on the New Hampshire-Vermont border can now witness the distinction between Forest Service lands of the Kilkenny Range east of Lancaster—the wooded mountains—and that of companies that purchase and liquidate—the denuded hills farther north along Route 3 (mirror image of Vermont's Route 102 across the river). The difference suggests that the federal versus local control debate is not so much about local benefits as it is about the maximization of resource use—and who gets to control or participate in that.

Forests Without Cultures

Wendell Berry in his essay "Conserving Forest Communities" states of his old Kentucky home, "[But] I am unhappy to remember every time I look—for the landscape itself reminds me—that I am a dweller in a forest for which there is, properly speaking, no local forest culture and no local forest economy. That is to say that I live in a threatened forest."

Berry describes a social process reminiscent of New England's: periods of benign neglect, during which forests grow, and periods of abusive logging, in which forest growth is mined. Regarding the rights of small private property owners to cut when and how they will, Berry identifies the larger problem: "They cannot go on the market except by putting themselves at the mercy of the market." This market is characterized by "the large scale exploitation of the forest by absentee owners of corporations" who build large mills and define markets (price).

Berry concludes: "[the] only appropriate human response to a diversified forest ecosystem is a diversified local forest economy. We have failed so far to imagine and put in place the sort of small-scale, locally owned logging and wood-products industries that would be the best guarantors of the long-term good use and good care of our forests."

For Berry, such a conservation economy—never achieved in the United States—is the only guarantor of liberty: "We must ask again whether or not we really want to be a free people. We must consider again the linkages between land and landownership and land use and liberty."

Berry sees folly in trusting either absentee corporations or government to accomplish the establishment of a genuine forest economy. "We can safely predict that for a long time there are going to be people in places of power who will want to solve our local problems by inviting in some great multinational corporation. . . Nothing so excites the glands of a free-market capitalist as the offer of a government subsidy."

We can see the inadequacy of current models of public ownership of land as an alternative to control by corporations and liquidators. Unfortunately, much of their misbehavior is indicative of a wider economic sys-



A view of Goback, Teapot and Lightning Mountains in Stratford, New Hampshire. Part of the proposed Vickie Bunnell Memorial Forest on lands offered for sale by Champion International. For more information about this proposal, see Mid Autumn 1997 issue of Forum (volume 6 #1). Photo © Emily Bateson.

tem that depends on the duality of people and nature. Those who push for more public land and lament public management are like the soldier who complained about the army's rotten food and the meager servings you get of it.

What is needed across the Northern Forest and the rest of the forested United States, is dedicated funding to localities that wish to secure backcountry wildlands. Every part of Vermont, for instance, has its core of remote, unroaded, wooded and generally mountainous wildlands. Most communities lack the resources to protect these wilderness cores when acreage is put on the market. And, increasingly, acreage on the market means that forest will be fragmented by development and over-cutting. Dedicated funding, such as is supposed to have been provided by the Land and Water Conservation Fund, would give communities a means to real local control.

Champion Land Sale

Today a good chunk of the land inside Routes 3 and 102 is for sale by Champion International: 138,500 acres in Vermont and 48,000 acres in New Hampshire. Some of the stray parcels will be shucked off, likely to past purchasers of such lots who generally skin them. The contiguous land is supposedly to be sold, in each state, intact, but a deal segmenting such pieces as the Yellow Bogs from timberland is not unlikely.

I plead guilty: two cheers for public land. If there is to be real local control in any meaningful cultural sense, communities surrounding the Champion land ought to be able to purchase it, rather than act as cheerleader for whatever private company or foundation graces us with their presence.

Here is what we could do, and what has admittedly been seldom done, if we were to view the Champion lands of Essex and Coos Counties as a magnificent opportunity for North Country residents to secure renewed cultural connection to their land. That connection might involve:

- Research and commitment to an ecological silviculture that would benefit towns like Brighton and Canaan with sawtimber for local added-value manufacture. Such a silviculture would aim for growing sawtimber, with red spruce and yellow birch logs a high value end product supporting local industry. In this process we could re-cover old growth structures and functions across a good portion of the area between the Mahoosucs and northern Green Mountains, enabling the travel of species hither and thither, including ambulatory humans.

- Habitat restoration for creatures whose historic ranges included the area and presently inhabit adjacent forest in Canada and Maine (wolf, marten, mountain lion, wolverine and woodland caribou). New Hampshire wildlife biologist Will Staats has already identified marten sign in the Stratford Range—on sale by Champion now.

- Watershed protection for streams and the restoration of quality trout habitat in streams and ponds.

- Opportunity for youth conservation work for young people of the wider Northeast Kingdom in such projects as timber stand thinning, ripping bridges, closing roads, inventorying and monitoring of flora and fauna.

- Protection of valuable forest, ponds and wetlands from further commercialization and development and securing businesses of the area a key economic asset in a Northeast Kingdom Reserve.

Ecologically Based Silviculture

Bergeron, Yves and Brian Harvey. "Basing Silviculture on Natural Ecosystem Dynamics: An Approach Applied to the Southern Boreal Mixedwood Forest of Quebec." *Forest Ecology and Management*, 92 (1997): 235-42.

Bergeron and Harvey studied a natural disturbance regime and are designing and experimenting with a silviculture regime to replicate it at Lake Duparquet Research and Teaching Forest, in northwestern Quebec, near the Quebec-Ontario border. The area is the site of mechanistic logging, but "still includes large tracts of virgin forest." Natural dynamics at the site involve "successive rotations of hardwood, mixedwood, and softwood dominance." Therefore Bergeron and Harvey are trying to develop methods that facilitate the transition on a single site, from one type of stand to another, and that maintain a natural mosaic of stands at the landscape level. To encourage conifer regeneration, for example, they are experimenting with partial cuts in intolerant hardwood and mixedwood.

from *Eastern Old Growth Notes*

Ritual Venting or Beer Hall Putsch?

by Andrew Whittaker

"There are millions of people across America who know there is something wrong. But they don't know what. Just like you." Michael Coffman

The big bald eagle of the John Birch Society swooped through Vermont recently, giving added energy to the fight against collectivism, communism and creeping socialism which is playing out over a beleaguered Forest and Parks Department's Forest Resource Plan.

Michael Coffman of the John Birch Society spoke recently in St. Johnsbury and Burlington on the perils of environmentalism and new world government. Signs suggesting a vast "eco-fraud" preceded the learned man's appearance in towns like Bloomfield, Williamstown and East St. Johnsbury.

Coffman portrays efforts to address global warming and to establish ecological reserves as part of a strategy to deliver power to the United Nations. Chief architect of this effort, he says, is Marty Strong, a Dow Canada executive whom Coffman alleges catapulted from doorman at the UN Building in New York to the shadowy corridors of world government in a few short years.

Coffman was careful to distinguish between the deluded grassroots activists who are unwitting lackeys and their new world overlords, a dispensation that many of us will doubtless appreciate. A passive but attentive crowd of about fifty turned out in St. Johnsbury. Coffman did not grant a formal questions period but most in attendance seemed to believe what he had to say so perhaps one was not necessary (a bit more religious fervor seems in order if this revolution is to ever get started).

Among the things you ought to distrust, according to Coffman, is the Heritage River designation, which groups in the region are seeking for the Penobscot and Connecticut. The federal recognition would make river groups and communities eligible for federal conservation and activity funds.

Grassroots Reaction

Coffman's rhetoric echoed through the Forest Resource Plan meeting in Morrisville, where the third citizen to speak, holding John Birch literature, suggested that Forests and Parks is participating in the world government conspiracy. Department personnel denied the allegation, but, given the crowd, they may as well have denied beating their spouses.

Another echo was a speaker's comment that environmentalism has been elevated to religion. This preceded another property rightist's defense of "God given" landowner rights. Coffman had dissed both "ecologists" and pagans; the true gospel apparently is private ownership for private gain.

All in all, the series of listening sessions are indicative of the (cyclically) downward spiral of forest policy discussion in Vermont. Smarting from a twin "environmentalist" victory restricting both clearcutting and the use of herbicides on clearcuts, Vermont's Tories have linked these issues to property tax reform as well, suggesting that the power of the state has been wrested from the people.

Staff notes to the Randolph meeting state, "In many years of running public meetings we have seldom encountered so much genuine anger. If we had to single out one predominant theme it would be: Vermont's forests are 80% private ownership and the plan better reflect their interests and concerns." (See sidebar) Much of this interest and concern amounted to contempt for public land and hostility toward government intrusion on private land.

While listening session attendees have stated their opposition to wildlife restoration, public land acquisition, public land itself, participation by non-landown-

ers in public process, regulation of logging practices and the existence of environmentalists variously described as "takers," "elitists" and outsiders, their limited endorsement of positive actions has hardly suggested the economic, ecological and cultural significance of forests to Vermont as a whole.

What Do Vermont's Landowners Truly Believe?

Throughout the Forest Resource Plan listening sessions landowners have asserted that the recent cutting bill was part of an assault on property rights and all landowners. Some suggest that only property owners deserve to deliberate on state forest policy. While not all landowners would agree with such a medieval concept of democracy, neither do all landowners agree that regulation of forest practices is unwarranted.

The late Forest Resources Advisory Council conducted a scientific sampling of landowners in 1996. While 46% of respondents opposed clearcutting regulations, 12% favored a total ban and 42% favored some regulation. 57% of Vermont landowners may thus be considered in favor of some forest regulation.

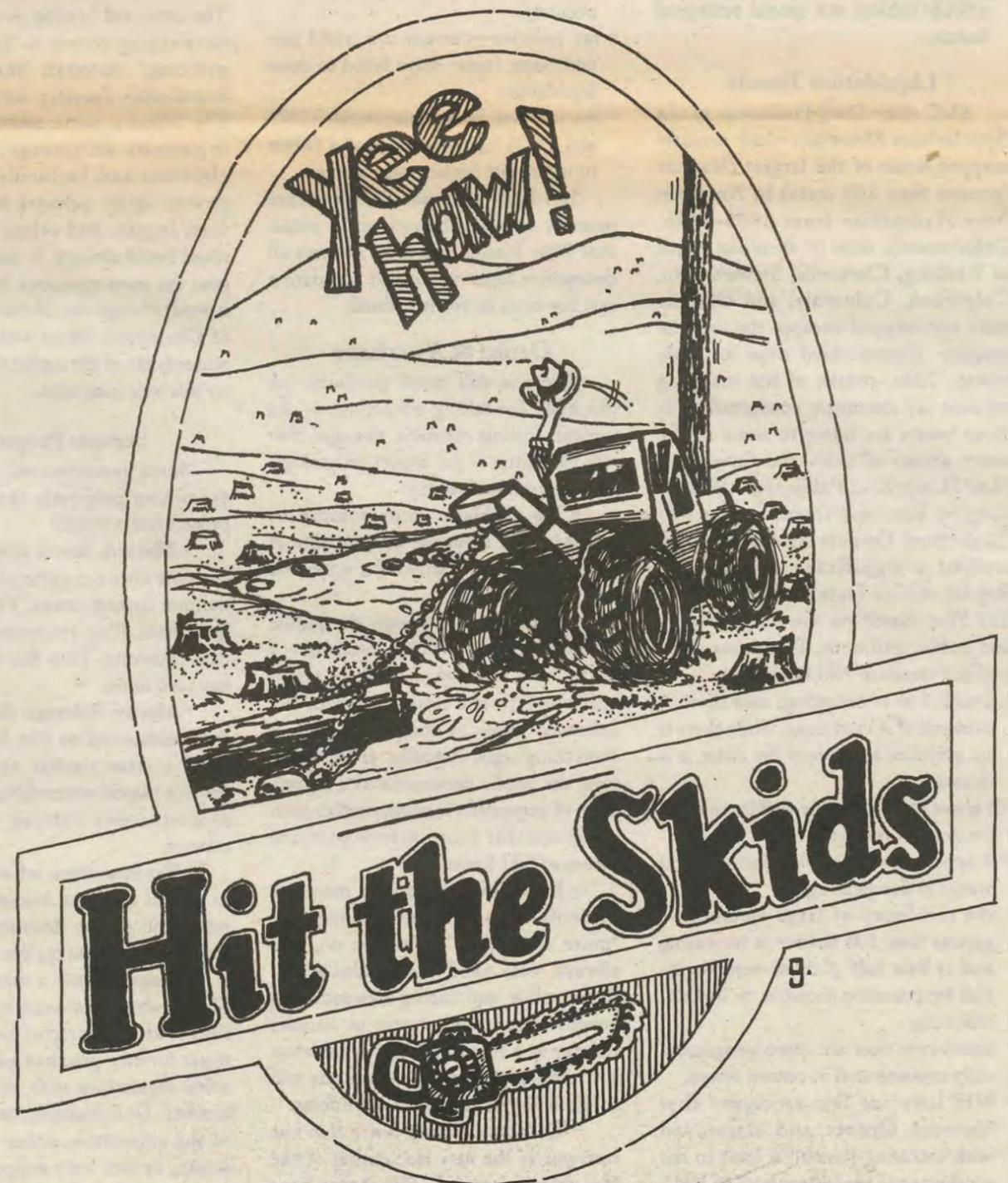
One writer's opinion, expressed in the headline "Loggers' Protest Asks, Who Really Owns the Forest?" overlooks the irony: in many cases, landowners own the land, and loggers (and foresters) knock on doors. Landowners, it would seem, would benefit from some level of assurance that work done on their land will be in adherence to acceptable standards.

Less scientific than a sampling, anecdotes are nonetheless fun. One logger once observed of notorious operators, "They don't cut their own land that way." Or how about this remark, picked up while under deep cover at a diner in Island Pond from a neighboring table, subject being Vermont's cutting bill: "Well, I know you'd never cut *that way* —but don't you think some of these characters brought it on themselves?"

What You Can Do

Although an angry and hostile atmosphere may not sound like fun to you, just remember that, in 1964, a vote for Goldwater was a vote for fun. Unless more people join the fun, Forests and Parks will be saddled for the next 10 years with the legacy of a lopsided policy discussion. The voices of the wider public, and a much more representative cross section of landowners, are needed in this discussion. Even anarchistic enviros who believe no good can come from government action need to be heard; your philosophic kin from across the aisle are involved; if everyone came, we could all have fun.

Your opportunity to join the discussion of what priorities (if any) ought to guide Vermont forest resource planning comes this winter as the Department of Forests and Parks holds another round of listening sessions on its draft plan. For more information, contact Steve Sinclair at (802) 241-3673; e-mail: ssinclair@fpr.anr.state.vt.us



"A New Brew for Vermont"

Public Tells NH Forest Liquidation Committee to Regulate Destructive Forestry

by Jamie Sayen

At four public hearings in held around New Hampshire from November 17-December 2, the NH Forest Liquidation Committee (FLC) learned that the public is concerned about liquidation logging, clearcutting, highgrading, and land conversion. Most who showed up at these hearings urged the state to take meaningful action to end ecologically destructive forest practices. The FLC is now preparing a report to the NH Forest Advisory Board, to be delivered in January.

On December 5 the FLC met to review the public comments and to begin drafting its report. Some members of the committee apparently did not hear the public outcry, nor the ecological concerns raised at these meetings. However, many of the committee members did hear these concerns, and most were struck by the fact that the problem of destructive forestry is viewed as a statewide problem, not merely a problem of Coos County.

Public Concerns

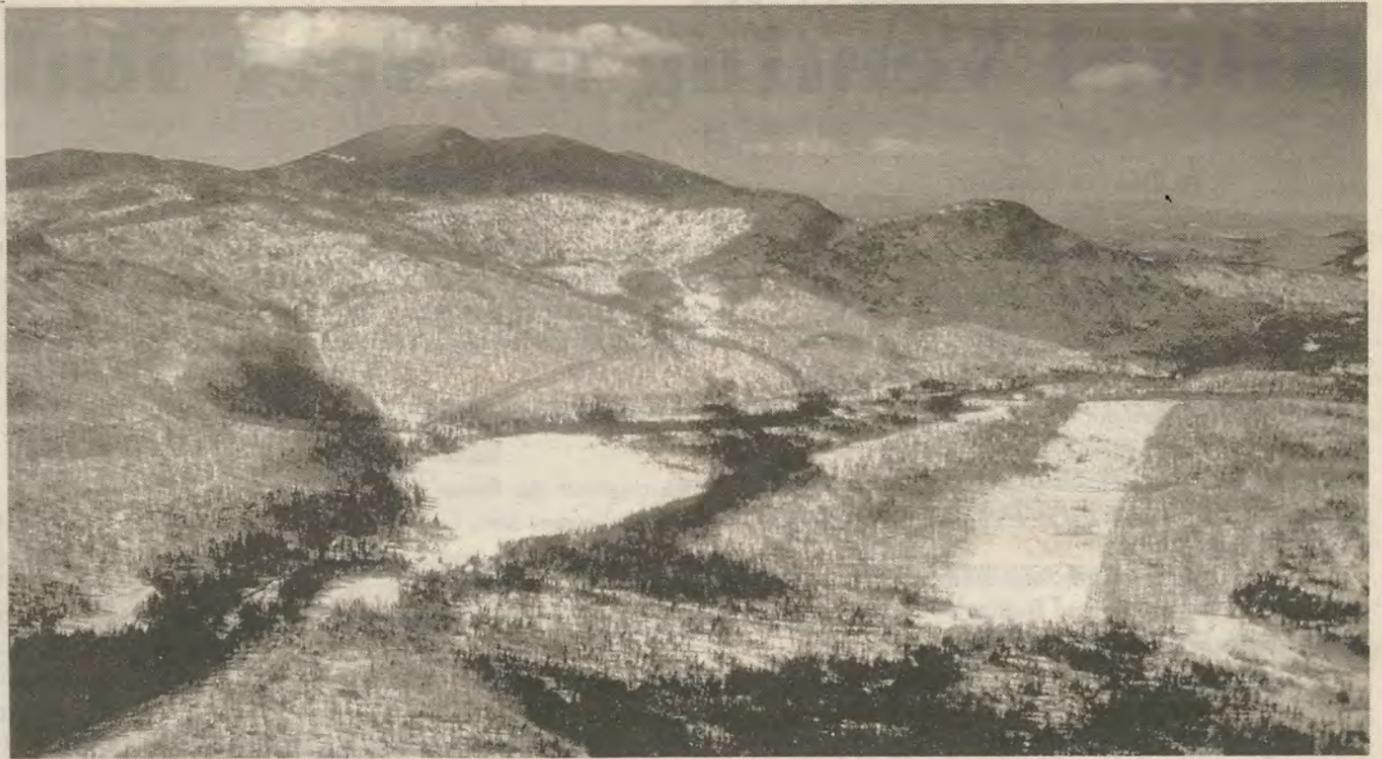
The public raised a number of concerns, foremost were:

- (1) soil and water quality;
- (2) regeneration;
- (3) the impact of destructive logging on future tax revenues and future jobs;
- (4) the ecological consequences of such logging, especially as it impacts wildlife habitat and special ecological features.

Liquidation Trends

FLC chair Dave Publicover of the Appalachian Mountain Club recently mapped some of the largest clearcuts (greater than 100 acres) in Northern New Hampshire from 1993-1996. Unfortunately, most or all of the towns of Pittsburg, Clarksville, Stewartstown, Colebrook, Columbia, and Dixville were not mapped because the satellite imagery showed cloud cover for those towns. Thus, results of the mapping exercise are extremely conservative, as these towns are home to some of the worst abuses of industrial forestry in New Hampshire. Publicover and Eric Kingsley, Executive Director of the NH Timberland Owners Association, also studied a significant sampling of Report-of-Cut Data from 1996-1997 Tax Year. Based on these two reports and public testimony, Publicover summarized trends in NH liquidation:

- liquidation is occurring, and there is evidence it is increasing, while there is no evidence to support the claim it is decreasing;
- it is not just the highly visible cuts;
- it is not just one operator;
- it appears to be moving into areas it wasn't in five years ago;
- the incidence of large clearcuts—greater than 100 acres—is increasing and at least half of those were identified by extension foresters as liquidation cuts;
- liquidation cuts are often geographically concentrated in certain towns;
- NH laws are less stringent than Vermont, Quebec, and Maine, and with maturing forests (at least in the southern and central regions of NH), New Hampshire will be the target of



Some members of the NH Forest Liquidation Committee feel there is insufficient evidence of a problem with destructive forestry to justify taking action. A majority of the committee opposes regulations to address the sort of "forestry" shown in this photo of Stratford Bog and environs. Not shown on this photo is the west facing slope of Sugarloaf Mountain where many hundreds of acres have been clobbered, allegedly under the supervision of a professional forester. Photo © Alex S. MacLean—Landslides

- future liquidation operations;
- seven percent of the cuts in the state remove 40 percent of the wood.

Threats & Problems

Here are some of the threats and problems identified by the public or members the FLC:

- pressures from the global economy to overcut;
- tax policies—current use, yield tax, and estate taxes—have failed to deter liquidation;
- the last two Forest Inventories (1971 and 1982) have documented a failure to regenerate higher value species.

In addition, at least one committee member agreed with much of the public that New Hampshire must address all destructive forestry, not just liquidation as it has been narrowly defined.

Denial & Avoidance

There is still much sentiment on the FLC for taking no action, or for recommending cosmetic changes that will have little or no impact on ecologically destructive forestry:

- **No problem:** some committee members still maintain this, in spite of accumulating evidence of a scientific and political nature;
- **Aesthetics:** although the public did not complain about the aesthetics of destructive forestry, several members still cling to the notion that an ill-informed public is complaining about something ugly. Actually, at the hearings, the public demonstrated a knowledge of ecosystem integrity, rather than a concern for more pretty postcard scenes of NH forests;
- **Education:** committee members in denial also cling to the need for "more education." True, we do, and always will need more education. Responsible and caring stewards will benefit from it and engage in sounder forestry as a result of it. But liquidators and industrial forestry operations will continue to ignore educational efforts;
- **Enforce existing laws:** this has emerged as the new red herring of the "do-nothing" crowd. The theory goes that enforcement of existing laws will

solve our problems. Although we should enforce existing law, it is silly to believe that they will prevent the worst abuses. They simply don't address ecological issues and there is no limit on clearcut size. Champion could clearcut over 100,000 acres in Pittsburg if it chose;

- **Sustainable Forestry Initiative:** The other red herring promoted by the do-nothing crowd is "industry self-policing" through the industry's Sustainable Forestry Initiative (SFI). The SFI is a public relations gimmick; it permits an average of 120 acre clearcuts and herbicide use. It was cooked up by industry without input from loggers and others who understand forest ecology. It may help scapegoat the most egregious liquidators, but it won't change the destructive activities of Champion, Mead and Hancock. It reminds me of the harlot who organized an anti-vice campaign.

Serious Proposals

Some members of the FLC are examining proposals that could help protect forest health:

- **More & better data:** Currently, the state does not gather data that helps monitor cutting trends. The NH Forest Resources Plan recommended better data gathering. Thus far, nothing much has been done.
- **Market Reforms:** the FLC hasn't really elaborated on this, but clearly, we need a state timber economy that rewards careful stewardship and punishes destructive cutting and raw log exports;
- **Tax incentives:** reform current use to reward excellent forestry (lowest tax rates) and punish destructive practices (revoke current use tax break).
- **Regulations:** a minority of the FLC is coming around to the realization that meaningful reform of the worst forestry practices will only occur when regulations with sharp teeth are enacted. Unfortunately, most members of the committee either opposes any action, or will only support voluntary measures—thus continuing to give the

most unscrupulous landowners, foresters and loggers carte blanche to keep on degrading NH forests.

A Modest Proposal

Here is my own modest proposal:

- (1) promote low impact forestry (through incentives, education);
- (2) restructure NH timber economy to promote value-added manufacturing to replace the clearcut and export economy that dominates too much of the state today;
- (3) reform current use and timber yield taxes to penalize ecologically destructive cutting and to reward excellent forestry, so that most favorable rates would go to those who leave well-stocked residual stands that have many live and dead big old trees, and protect ecosystem integrity; deny current use tax breaks to those who degrade the forest ecosystem;
- (4) regulate against the worst practices (you cannot regulate excellent forestry; you can only provide strong incentives for it). Any cutting below the C-line (this means a cut has left a stand understocked) on greater than 3-5 acres should be fined at a rate that will truly discourage bad practices. And then enforce existing state laws.

Do Regulations Work?

Do regulations work? We have an interesting test case in the news these days. Champion is selling thousands of acres of timberland in the Adirondack Park, northeastern Vermont, and northern New Hampshire. Informed sources relate that only the Adirondack holdings retain sufficient timber stocks to make purchase of these lands a smart timber investment. Which state has had a 20-acre limit on clearcuts for over two decades?

A Strategy to Destroy NH Timber Industry

I do not recommend this strategy, but for those whose goal is to destroy the long-term viability of the NH timber industry, there is a sure-fire strategy: continue to do nothing.

Society for the Protection of NH Forests Offers Liquidation Permitting Plan

The following is excerpted from a memo from Charles Niebling, Policy Director of the Society for the Protection of New Hampshire Forests to the NH Forest Liquidation Committee, dated December 2, 1997 and passed out at the public meeting of the NH Forest Liquidation Committee on December 5.

The Forest Society favors 1) the establishment of a permitting process for "extensive forest removals", in combination with 2) increased funding for forest law enforcement and the creation of a new forest ranger positions, and 3) the establishment of an improved forest data analysis and monitoring capability within the NH Division of Forests & Lands. . . .

The Forest Society will always favor non-regulatory incentives, industry self-regulation such as SFI, and educational efforts such as Good Forestry in the Granite State to encourage better forestry. For over 90 years we have been instrumental in developing a program of incentives (tax and otherwise) and forestry education that is the envy of many other states.

However, it is time in New Hampshire we seriously evaluated the merits of a limited permitting process that respects rights of the landowner, but ensures to the greatest extent possible the protection of basic components of forest health and productivity on the largest, most extensive harvests. The attached general ideas offer a framework for such a permitting process.

Regulation of Extensive Forest Removal

Purpose: Provide for regulatory review and approval of timber harvesting on contiguous area exceeding certain minimum acreage that results in residual stand density below certain threshold, in order to ensure that landowner satisfactorily addresses and implements soil, water quality, regeneration, wildlife habitat and aesthetic considerations.

General Outline: This regulation would trigger a permit procedure, whereby applicant would have to satisfy various criteria in order to legally exceed thresholds.

Specific Components

1. Acreage/residual stand density threshold: Permit process would be triggered on harvests exceeding 75 contiguous acres, and reducing residual basal area below C-line stocking. Equivalent basal area would thus be silviculturally-based, and a function of forest type (spruce-fir, pine-oak, northern hardwood).

2. Authorization of local enabling legislation to reduce acreage threshold: Legislation would include enabling language authorizing municipalities to reduce acreage threshold down to certain minimum acreage (say, no lower than 40 acres), by vote of town meeting. Municipalities would not have authority to modify any other provisions of law (statute would make clear that state law preempts), so only difference from one town to the next would be the acreage threshold triggering regulatory review.

3. No exemption for forest conversion:

Any extensive forest removal, regardless of ultimate use of land, would be required to submit permit application. However, conversion of forest land to non-forest uses, would automatic permit approval (sic), so long as any and all other state and local regulatory requirements are satisfied.

4. Regulatory review process: A New Hampshire Forest Productivity Board would preside over and adjudicate permit applications. The general function of the board would be outlined in statute, while the specific duties would be determined by administrative rule-making: The NHFPB would consist of five members:

- the director of the Division of Forests & Lands, DRED, or designee;
- the director of NH Fish & Game Department or designee;
- the director of the Division of Water Resources, DES, or designee;
- the chairman of the city council or board of selectmen of the municipality in which a majority of the ownership is located, or designee; and
- the applicant landowner, or designee.

. . . By majority vote, the NHFPB would have authority to deny a permit request, but only if the applicant failed to provide sufficient information to address the criteria required. The board would have authority to approve a permit subject to specific terms and conditions.

6) (sic) Right of Appeal: The applicant would have a right of appeal . . . of a decision of the board denying approval

of a permit application.

7) Information required in permit request: The exact information that would be required in a permit application would be determined through administrative rulemaking. At a minimum, the applicant would have to provide information on the following:

- Plan to implement Best Management Practices to minimize soil erosion and protect water quality, based upon consultation with NRCS or NH Wetlands Bureau;
- Plan to address sensitive or significant wildlife habitat considerations, based upon consultation with NH Fish & Game Department;
- Plan demonstrating how adequate regeneration will be secured;
- Plan to address aesthetic considerations.

8) Exemption from regulatory approval if plan is submitted by licensed forester: Information required in the permit application could be prepared by the landowner. There would be no requirement that the landowner's application be prepared by a licensed forester; however, a plan submitted on behalf of the landowner by a licensed forester would result in automatic approval by the board. (NOTE: Under forester licensing law, failure to comply with terms and conditions of permit approval could serve as grounds for revocation of license).

9) Automatic approval for failure of board to issue decision within 30 days...

FOREST SOCIETY PROPOSAL FAILS TO ASSURE PROTECTION OF NH FORESTS

by Jamie Sayen

The proposal advanced by the Forest Society on this page contains one excellent suggestion and several items that will seriously undermine efforts aimed at the protection of New Hampshire forests. Many of the worst elements of this proposal smack of the paper industry's Sustainable Forestry Initiative (SFI), a public relations gimmick that offers scant protection to forest ecosystem integrity, and the twice-rejected Maine Forest Compact. They protect industry and landowners from true accountability and assure that ecologically destructive logging will continue to be permitted, just as current NH pesticide law assures that herbicide spraying will be imposed on an unwilling public, regardless of public sentiment and scientific evidence of its harm.

One Excellent Suggestion

The Forest Society proposal calls for triggering a permit review when a logging operation reduces the residual basal area below C-line stocking. The C-line indicates minimum stocking of a residual stand. Leaving behind a stand that falls below the C-line means that the stand is understocked. While apologists for clearcuts always trot out excuses for cutting below the C-line, most are pretexts to justify heavy cutting.

Unacceptable Proposals

Unfortunately, much of the Forest

Society Proposal is unacceptable, and reads like a wish list from the timber industry and the guild of foresters. Here are the worst elements of the SPNHF proposal:

• **75 Acre Trigger of Permit Process:** 74-acre clearcuts will automatically be exempt from this plan. This is indefensible from a scientific viewpoint. The Forest Society boasts that for over

90 years it has been "instrumental in developing a program of incentives . . . and forestry education that is the envy of many other states." Unfortunately, these accomplishments have failed utterly to protect NH forests from the onslaught of industrial forestry. The reason Champion's Adirondack lands are more attractive to potential timber investors is because the Adirondacks

have a strict limit of 20 acres on clearcuts, not because Champion's foresters in New York are somehow more enlightened than its foresters in Vermont and New Hampshire, where absence of any meaningful limits on clearcut size has permitted Champion to devastate its holdings.

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Clearcuts done by Mead Corporation (formerly Boise-Cascade) to the right of Dummer Ponds were sprayed with herbicides in 1997. The liquidation forestry proposal by the Society for the Protection of NH Forests will assure that this sort of "forestry" continues without inconvenience. Photo © Alex S. MacLean—Landslides

We Have a Chance to Get it Right

by Jim Emerson

From an address to the Fifth Annual Loggers & Truckers Convention regarding the work of the NH Liquidation Committee. Jim Emerson is a NH forester and principal of the forest products company Foresthetic Enterprises.

Do we think of the forest in which we live as something apart from us or even foreign to us at times? Nothing could be further from the truth. We are part of the forest environment. We contribute to the forest environment by living and working in accord with the people, animals, plants and earth that make up the forest environment. We may especially appreciate high value stands of timber, fresh air, clean water and lush vegetation that enrich our life. Being a good caretaker, we are responsible for maintaining such beauty and wonder. Let's show the people who make up our state, our home, our neighborhood, our workplace, even the whole world, that we loggers in New Hampshire manage our forests in a way that makes everyone feel proud. We can be both a giver and a

receiver in a rich and abundant forest.

We need to learn how to stand in the changing position of our forest resource with its new demands. We must modify our harvesting methods with the changing times to keep our logging carriers healthy. Healthy with management techniques that will ensure timber that will be economically beneficial for us to harvest in the future.

When we are out in the forest harvesting, I think it would be good for us all to dream of what we would like the next harvest on that site to be like and encourage that by manipulating its residual stand to make that dream come true. We all need to take the beginning steps to create future harvests of bigger wood of higher quality with valuable species. We can make a life-saving difference for our industry. Let's all use the wisdom we have to ensure worthwhile future harvesting opportunities. We are all sitting at the beginning of one of the greatest timber resource opportunities of all times with new worldwide markets. The key to our success to this emerging opportunity is the future availability of high quality timber. It

may be hard for some of us to leave merchantable timber of good quality standing in the woods for next time and to protect and release quality growing stock during a harvest, but it is very important for the future of our industry as loggers. Let's not be an endangered species in New Hampshire. Let's get our forests to the peak of their physical function, growing valuable timber for future markets. It's the medicine our industry needs. If we don't do it ourselves, it may be forced upon us with extra measures that may be even harder to swallow.

For years we have been at the mercy of the primary users and end users of the resources we have provided. This happened because we grew and harvested more resource than our local markets could use. Recently our markets have opened up worldwide and our timber values and demands have increased because we no longer have just local markets. If we continue to over-cut now instead of being at the mercy of the market, we may be at the mercy of the general public and the land owner. Working directly with the raw timber
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Proposal Fails

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Suggestion: Trigger a permit process whenever a proposed cut that will fall below C-line exceeds 5-acres, and make it next to impossible for such an application to be permitted.

• **"Local Enabling Legislation":** This section (2) is mistitled; it should be called the "local disenfranchisement" section. While section 2 permits towns to lower the clearcut limit from 75 to 40 acres, it preempts any other local regulations concerning this issue. This local disenfranchisement provision works well for the herbicide sprayers of New Hampshire, and is one of the highest priorities of the timber industry, which long has recognized that it is easier to control the environmentally-enlightened NH Legislature than to have to deal with individual municipalities that are fed up with the State's irresponsible refusal to protect our forests.

Suggestion: Delete. Towns have a right to protect their forests; this may provide incentive to the timber industry to change its strategy with the NH Legislature.

• **Regulatory Review Process:** Placing the landowner on the review board is a clear conflict of interest and is unacceptable. Landowner has right to plead case, not to judge himself.

Suggestion: Given that the SPNHF proposal virtually assures granting of permit, just as the pesticide permitting process guarantees a permit, it is best to scrap this model. And certainly, the landowner cannot be judge of his own application.

• **Exemption for application submitted by a forester:** This sounds reasonable. Unfortunately, almost all of the worst logging operations in Maine, New Hampshire, and

Vermont over the past couple of decades have been on industrial, or large non-industrial lands and have been designed by professional foresters. This proposal smacks of special pleading for the guild of foresters, and seems aimed at scapegoating the liquidation contractors while assuring Mead and Champion the "right" to continue to clearcut hundreds of acres and then spray them with herbicides. While I agree that responsible foresters should work with the landowner and loggers to design logging operations, there is no guarantee that, under the current unregulated climate of NH a plan written by a forester will protect ecosystem integrity. A 75-acre clearcut wreaks havoc with ecosystem integrity whether or not a professional forester designed it.

Suggestion: Eliminate this provision. Instead, develop a permit process that is triggered whenever a proposed cut exceeding 5 acres will fall below C-line, and make it next to impossible for such a limit to be permitted. Under such circumstances, there will be much greater opportunity for trained professionals to demonstrate their skills and commitment to the protection of New Hampshire forests.

Conclusion

The Forest Society proposal on liquidation cutting will do very little to slow the flood of destructive forestry in New Hampshire. In fact, it will ensure that Hancock, Champion, Mead, and other industrial-scale clearcutters will have carte blanche to continue to degrade NH forests. This proposal will do much to subvert other efforts to end such practices. With the exception of its excellent suggestion of using the C-line as a triggering mechanism, this proposal should be rejected.



Loggers Working to Form "Yankee Forest Safety Network"

Loggers in Vermont and other New England states are working together to improve safety and lower workers compensation rates. Their goal is to form "The Yankee Forest Safety Network," a regional safety group for loggers with employees. The Northern Vermont Resource Conservation & Development (RC&D) Council has been coordinating the effort and raising seed funding for the start-up of the Safety Network, says Jim Hourdequin, the RC&D's Safety Network Project coordinator.

Loggers pay some of the highest worker compensation rates of any industry—around 30% of wages for loggers in Vermont and New Hampshire. Workers' compensation insurance, combined with unemployment insurance and social security, can total over 50% of payroll.

Many loggers cannot afford workers' compensation and consequently remain uninsured, without coverage for long term disabilities, rehabilitation, and lost wages following accidents.

Members of the Safety Network will lower their insurance costs by creating a "low risk" insurance pool and by working together to improve safe-

ty. The Safety Network will establish membership requirements and safety standards, and coordinate training and compliance programs. The Safety Network will be successful only if all participants make a serious commitment to safety and professionalism.

A logger steering committee is developing a draft of the Safety Network's standards and training requirements. According to Hourdequin, the Safety Network will administer a safety and "loss control" program that is specifically designed for loggers with employees. In addition to coordinating logger training with existing programs, the Network will also offer back-to-work programs, hiring assistance, and management training for employers.

The Safety Network recently received a boost of support from the Vermont Sustainable Jobs Fund which provided \$20,000 to fund the organizational process over the next six months.

According to the Sustainable Jobs Fund's executive director, Wayne Fawbush: "This project fits perfectly with our mission to create higher value jobs and improve Vermont's natural working landscape. These safer and higher value jobs will build a more stable and prosperous work force."

For more Safety Network information, contact Jim Hourdequin at (603)-643-0188.

Maine Woods Watch

by Jym St. Pierre



The Maine Woods is the greatest remaining wildland east of the Rockies. However, today this region is under siege. Maine Woods Watch is devoted to documenting the good, the bad, and the ugly affecting the Maine Woods, with an emphasis on opportunities for citizen action to protect and restore the essence of the region, its wildness.

Not 2B: The middle could not hold. The proposed Compact for Maine's Forests was Question 1 on the ballot this year, but it is still better remembered by the nickname "2B" from its position on the ballot in 1996. For the second time, in November those concerned that the Forest Compact was too weak combined with those concerned that it was too strict to convince a majority of voters to defeat the measure. Actually as many people were confused as were convinced.

During the last few weeks of the campaign big bucks flowed into massive point-counterpoint television and newspaper advertising. A pair of political action committees on the Vote No side received over \$800,000 from a mysterious donor to fund their advertising blitz. The sense of mystery dissipated when the contributor was revealed to be S. Donald Sussman, a wealthy Connecticut banker with a seasonal home in Deer Isle, Maine, and financial interests in a Canadian paper company. The Vote Yes folks still outspent their political opponents at least two to one. Paper companies put up \$2 million, on top of the \$6 million expended last year, in another vain attempt to enact the compact by statewide vote.

Advertising claims by both camps stretched the truth to the breaking point. In the end, the Forest Compact garnered a bit less than 48% of the vote, enough shy of the magic majority to send it to the political chipper. So the focus moves back to the State House. When it reconvenes in December, the legislature will be facing a dozen forestry bills held over from the last session. The forest products industry and the King Administration desperately wanted the Forest Compact to pass so they could ask the legislature to reject new forestry reforms and give the Compact a chance to work. Instead, now there is likely to be another knockdown brawl beneath the capitol dome. However, the alliances are shifting again.

As soon as the result of the vote was known election evening the three sides began posturing. Jonathan Carter, leader of the crowd that wants to stem unsustainable forestry, stopped breathing fire. In fact he sounded a downright conciliatory tone: "I'm hoping maybe we can put the war clubs aside." (Contact FEN, PO Box 2218, Augusta, ME 04338.) Mary Adams, bellicose field commander of the extreme private property rights folks, on the other hand, declared war on the greens: "With the Compact gone and the governor irrelevant, the allies [private property rights advocates and large landowners] can come together and defeat anything Carter and the radical environmental groups bring down on the people of Maine." (Contact Common Sense for Maine's Forests, PO Box 111, Garland, ME 04939.)

Gov. Angus King, after two misses, hinted that he would sit out the next skirmish. King had announced shortly before the election that he will run for a second four year term in 1998. Mary Adams' protege Rep. Henry Joy (R-Crystal) is the only major party candi-

date running against King so far, but with his obsession on loosening the grip of southern Maine on the northern part of the state he is seen as a one issue fellow. Pundits are declaring King wounded by the defeat of the Forest Compact. However, that issue alone will probably have little effect on his political prospects. Voters have short memories. And don't count on King to stay on the sidelines for long.

It is too soon to reliably predict any outcome. Yet, my early guess is the legislature, not known for being particularly progressive on conservation issues in recent years, will seek a way out of the gridlock by endorsing another study of forest practices in the Maine Woods. Conveniently, Rep. Ed Dexter (R-Kingfield), who proudly claims to be the only logger in the legislature, has a bill on the table to do just that.

Conservation Constipation: The forestry fight in Maine has drawn plenty of attention beyond the state's borders. The *New York Times* and other national news media have covered the story. But all of them have missed the larger trend. Maine, which a generation ago was rightfully admired for being a leader on environmental issues, has become constipated over conservation concerns. Look at the record of the last several years.

In the early 1990s, conservationists introduced bill after bill in the legislature to address the mindless forestry abuses that had run amok for over a decade. In response, every single bill was killed or turned into a gutless study. Tens of thousands of people signed petitions to put an initiative on the ballot to stop clearcutting and overcutting. In response, the governor insisted on having an alternative measure that split the support of conservation-minded voters and derailed the original citizens' referendum.

Hundreds of citizens testified in favor of adding to the revised comprehensive plan adopted by the Land Use Regulation Commission strong policies to strictly limit development in major wildland areas. In response, LURC ignored the public. Thousands of citizens testified to the Northern Forest Lands Council in favor of giving the public a chance to acquire key properties when major landowners put their holdings up for sale. In response, neither the governor, the legislature, nor the Congress have enacted anything to protect the public interest in Maine's famous wildlands in the face of continuing large land sales.

The latest fumbles occurred in November when two reports came out. Both contain some good information and ideas, but both miss major opportunities for safeguarding the public interest in North Woods protection.

After more than a year of meetings and public hearings, the Governor's Land Acquisition Priorities Advisory Committee finalized its report on public lands needs. Scores of Mainers spoke and wrote in support of full protection of large tracts in the North Woods. Sidestepping those public comments, the committee decided not to put protection of large North Woods areas into the highest priority category, and to redefine land acquisition to mean primarily easements rather than full fee ownership. (Contact State Planning Office, 38 State House Station, Augusta, ME 04333.)

The second fumble came in the form of a draft of a long awaited report identifying potential ecological

reserves on existing public and nonprofit conservation lands. Conservation biologists have insisted that reserves need to be tens of thousands to millions of acres in size to accommodate natural disturbances to biodiversity. Despite that, the scientists who prepared the report eliminated a number of large sites for political reasons, and they included virtually no potential ecoreserves big enough to approach conservation on a landscape scale.

The total area of potential reserves on existing conservation lands equals only 2.3% of the land in Maine. That is only a fraction of what is needed to maintain biodiversity, and it does not approach what is needed to restore our lost natural communities and native species. Moreover, most of the potential reserves are on state lands managed by agencies that have already registered concern about the ecoreserve designation. And paper companies and other large landowners are maneuvering to block implementation of any sort of meaningful system of ecoreserves even on public lands. (Contact Maine Forest Biodiversity Project, 328 Main Street, Suite 205, Rockland, ME 04841.)

May the Forests Be with You: The Baxter State Park Authority has not yet made a final decision about prohibiting vehicular traffic and hunting on 2,700 acres added to the forever wild park. (Contact Baxter Park, 64 Balsam Drive, Millinocket, ME 04462.) The state has purchased 940-acre Sears Island to keep its options open. The Maine Dept. of Transportation had wanted the island for a cargo port, but now is looking at a cruise ship dock and park. The Sierra Club still prefers a wildlife refuge and nature education center. (Contact Sierra Club, 192 State Street, Portland, ME 04101.)

The Maine Bureau of Park & Lands is preparing to start a complete review early in 1998 of its policy plan for all the state's public reserved lands. The same agency is still working on a rewrite of the management plan for the Allagash Wilderness Waterway. Wilderness advocates should ask to be on the mailing list for both. (Contact, 22 State House Station, Augusta, ME 04333.) Congress has appropriated funding to complete public purchase of lands in the Appalachian Trail corridor by 2000. The remaining puzzle piece in Maine is along Saddleback Mountain. Unless the mountain ski area is sold to an owner who agrees to fully protect the wilderness trail experience, the decade long standoff will advance to hearings and possibly court. (Contact Appalachian Trail Conference, PO Box 807, Harpers Ferry, WV 25425.)

The Air Force and the US Fish & Wildlife Service are arguing over which agency is responsible for removing buildings contaminated with asbestos from the former Loring Air Force Base. The disagreement is delaying conversion of much of the base into a new national wildlife refuge. A coalition of conservationists, Native Americans, environmental agencies, towns and industries is hoping to nominate the 8,600-square mile Penobscot River watershed as an American Heritage River under a new program created by the Clinton Administration last spring. The designation would bring national honor, \$100,000 for local river projects and no new federal regulations. Nevertheless, pulp and paper workers, private property advocates and green global conspiracy theorists are opposing the idea

as a national or international land grab.

One guy who thinks we have too many public lands already is Leon Favreau. As self-appointed head of the Multiple Use Association he is assembling \$80,000 from the forest industry to fund a special edition of *Evergreen* magazine. The issue will explain in words and pictures "why the federal government ought never to be entrusted with another acre" in the Northern Forest.

Playing the Odds: The chances are increasing that high stakes bingo will come to Maine. The Land Use Regulation Commission voted 5-2 in late November to approve a proposal by the Passamaquoddy Indians to build a 2,000-seat bingo parlor in Albany Township on tribal trust lands. Tamir Sapir, a New York City real estate developer, will put up \$5.5 million to build the gaming hall which the Passamaquoddy's say will help lift them out of poverty. Locals have fought the bingo center as an intrusion on their life in the slow lane and a foot in the door toward eventual construction of a full blown gambling casino. Smart money says the question will end up in court.

The State of Maine is risking being sued for fraud. Last summer the state ran an experimental \$60,000 marketing campaign to lure citizens from the mid-Atlantic states to inland Maine by creating the impression of endless, unspoiled forests. Specifically targeted were people who typically visit public lands in the Adirondacks or White Mountains. When they saw some of the landscape abuses in the industrial forest, more than a few tourists probably wanted to press charges for bait-and-switch.

It does not have to be that way. Anyone interested in understanding why protecting forests and other landscapes can benefit local and regional economies more than overcutting them should read *Lost Landscapes and Failed Economies* by Thomas Power (Island Press, 1996). The book documents why the economy of the Pacific Northwest is booming, even while the timber industry is bailing out. A similar analysis, *Gateway to a Healthy Economy*, explains how Maine has terrific potential to capitalize on the distinctive, marketable features of the beloved Maine Woods by permanently protecting key parts of our inland landscape. (Contact, RESTORE, 7 North Chestnut Street, Augusta, ME 04330.) However, understanding and protecting the value of place does not happen by accident. It takes foresight and action. As with any multi-step recovery program, it first requires admitting there is a serious problem.

There are signs that some North Woods communities are finally ready to acknowledge that they have a big problem and need a revolution in thinking to survive. A *Boston Globe Magazine* story last spring put the plight of Millinocket into perspective for a lot of local folks. Now, according to the *Bangor Daily News*, "Ten years ago, tourism was a dirty word in the Millinocket area. But the loss of 2,000 high-paying paper mill jobs through corporate downsizing has changed that attitude." So have rumors that many of the Bowater/Great Northern paper machines are likely to be shut down and that a foreign company is looking at possible purchase of a big chunk of the company's 2 million acres of timberland.

Suddenly, Millinocket is becoming tourist friendly. The town's economic development director has formulated a program which includes expanding tourist attractions and accommodations. Local officials recently hosted the Maine Tourism Council. They have started meeting with a group from Greenville working to establish a Natural Resources Education Center to tell the Maine Woods story to visitors. They held a wildly successful Wooden Canoe Festival in August and are looking at sponsoring an Appalachian Trail festival next summer. The Katahdin Area Chamber of Commerce has agreed to cooperate with its counterparts at Moosehead and in southern Piscataquis County to jointly promote the region. KACC even instituted "Operation Tourist Stop" which welcomed some unsuspecting tourists with a basket of goodies from local merchants. Ironically, the recipients of the first surprise basket this past summer were a family from Massachusetts, the state which used to literally own Maine. Deriding Massachusetts is the official

state sport in northern Maine.

Les Otten is going for broke. He has officially become king of the mountains. After a buying and selling frenzy, his American Skiing Company is officially the largest ski firm in the U.S. with eleven alpine resorts across the country. ASC just spent \$290 million for mountains in California and Colorado. The *Edge* magazine, which is published by Otten, says this year he also invested \$50 million in on-mountain improvements plus \$60 million on hotel enhancements. The day ASC went public on the New York Stock Exchange this fall the company sold 8,377,500 shares at an average of \$17 each. In fact, Otten literally shut down the stock exchange. As proprietor of the most heavily traded issue of the day, he was allowed to pound the gavel at 4 PM to close Wall Street trading. A week later Otten was back in New England pounding on conservationists.

He told an audience of newspaper editors the environmental movement needs to find a new role for itself. He said he would "like to see the environmental community in New England unite and look at solving some of the significant infrastructure problems that exist for transportation and power." In other words, rather than pester him, help him make his empire even bigger. Mr. Otten seems to misunderstand the public interest role of ecological watchdog that environmentalists fill in the free market social structure.

Another guy who is hedging his bets is Greg Cyr of Ashland. Recently he started a bottled water company which markets "Loon Country Natural Mountain Water from the Northern Maine Wilderness." Actually Greg comes from a long-time northern Maine logging family and has been a leading defender of the working forest. He served as president of the Maine Forest Products Council a few years ago. Now he is playing both sides. He realizes forestry is on the downside and

marketing the Maine wilderness mystique is on the upswing. Although he continues to be much involved in logging, I doubt you will see Greg selling his product as "Starling Country Heavily Filtered Water from the Northern Maine Industrial Forest."

Incidentally, the mega tax breaks offered to Bath Iron Works are being challenged by a citizens' referendum drive. BIW's parent, General Dynamics, has reported record profits. James Mellor, Chairman and CEO of General Dynamics retired in July and a few days later sold half his stock in the company for \$23.5 million. He was only paid \$11 million last year so obviously he needed the money. Right. As if the company needed tax kickbacks from the little people in Maine.

One type of federal spending that Maine has been on the losing end of for a long time is conservation. If we insisted on our fair share to buy forestlands from paper companies looking to cash out, we would benefit economically as well as environmentally. The Maine Office of Business Development is starting a new program to establish regional business and industrial parks, called "Super Parks." Maine could balance that push by working to establish "Super Nature Parks," such as the proposed 3.2 million acre Maine Woods National Park. If we end up with nothing but sprawling residential and commercial development in southern Maine and an industrial fiber farm landscape in northern Maine, we will have squandered one of the greatest economic and environmental opportunities the state has ever had. Risking the loss of our wildlands is not only ecologically hazardous, it is fiscal folly.

Pink Slips: The Maine Pulp & Paper Association boasts that Maine is the largest producer of printing and writing papers in the United States. However, the MPPA does not like to advertise the fact that most pulp and paper mills in Maine are now less competitive than those in many other areas, especially newer, larger, more capital intensive plants in other third world economies. Employment in the paper industry in Maine continues to plummet and large land ownerships remain unstable. Both workers and trees are being put through the mill.

Workers at the Fort James paper mill in Old Town have backed into another contract. They voted 276-186 not to strike. That means by default they accept the company's five-year contract, which includes 3% annual pay raises and a 22% increase in pension benefits. Many employees wanted more but were not willing to risk a strike. Yet, papermakers at a lot of other Maine mills would be delighted with those kinds of gains.

In late October, Georgia-Pacific Corp. said it would not have to shutdown its oriented strand board mill in Woodland for five months as earlier projected. Then, two weeks later, GP suddenly furloughed 70 workers at the OSB plant for at least three weeks because of a shortage of aspen. In response, town councilors have offered a tax-increment financing deal to the company. The TIF agreement, which could provide for a rebate of as much as \$20 million, is intended to entice GP to invest to make its local mills more competitive.

In 1892, Hollingsworth & Whitney built a massive papermill in Winslow on the east bank of the Kennebec River. In 1954, Scott Paper Company bought out H&W. To commemorate the centennial of the mill, Scott shut down two paper machines and laid off 250 workers in 1992. Three years later Scott sold out to Kimberly-Clark. In June, 1997, KC turned off the 105-year-old No. 2 paper machine and pink slipped another 115.

Now, KC has announced machines 6 and 7 will go down in December. By the holidays, most of the remaining 264 employees will lose their jobs and the mill will close permanently. Pleas by mill workers, local officials, even Gov. King to keep the plant running so it might be sold as an operable facility have been rejected. Texas-based Kimberly-Clark says it has a trio of possible buyers, but the company has also indicated it plans to start removing equipment soon. KC is shutting or reducing operations at 18 plants worldwide and eliminating about 5,000 jobs. The Winslow mill is one



Angus King

that does not fit the company's strategic plan to double earnings by 2000. Downstream on the Kennebec, 80 workers got an unpaid vacation when Tree-Free Fiber Co. closed its Augusta mill for Thanksgiving week because of a worldwide oversupply of tissue.

S.D. Warren, a subsidiary of South African Pulp & Paper, is selling its unit in Westbrook that makes label papers to Spinnaker Industries of Dallas, Texas. Some of the income from that sale may have to go to pay a \$14,000 fine being assessed against S.D. Warren for OSHA violations at its Somerset mill. Mead Corp. will not be fined for a massive accident at its Rumford papermill in September. An estimated 21 tons of sulfuric acid and 39 tons of sodium chlorate leaked, forcing the evacuation of hundreds of workers. The Maine Dept. of Environmental Protection says if Mead takes corrective actions to prevent such future accidents, there will be no monetary penalty.

After five years of negotiating with the pulp and paper industry, the Environmental Protection Agency has finally issued its air and water cluster rules. In New England, eight mills in Maine, plus two in New Hampshire on the upper Androscoggin River, will be affected by the new regulations. The plants will switch to chlorine dioxide for bleaching. That will reduce dioxin discharges by 96%. But Maine law is already tougher than the new federal regulations, and the Natural Resources Council of Maine says the mills should go chlorine free.

The news is equally mixed on the land side of the story. Champion International, which announced in October it is selling almost 330,000 acres in New Hampshire, Vermont and New York, days later revealed it is buying 140,000 acres, along with a sawmill, in Maine from Fort James. Champion will extend its habitat management program to the new lands. That stewardship initiative only earned a C+ grade from an independent assessment earlier this year, but the company insists it is a more holistic approach than even the state fish and wildlife agency uses.

Other lands are changing hands too. In a desperate move to raise money, Crown Vantage, formerly James River, formerly Brown Company, has sold virtually all of its remaining timberland, including 83,200 acres in New Hampshire and western Maine, for \$36 million. Hancock Timber bought 46,000 acres in NH; the rest was purchased by Yankee Forest LLC, a company with anonymous principals.

Louisiana-Pacific is selling a billion dollars worth of assets and laying off 3,300 companywide. LP has been losing a lot of money, \$112 million in the third quarter. Under orders to divest its generating facilities and associated lands, Central Maine Power Company is looking for buyers for its more than 21,000 acres of forest. J.D. Irving has encountered loud cursing about its industrial forest practices in Maine in recent years. However, Irving may have met its match in Nova Scotia. Catholic monks there are protesting noisy timber cutting within two miles of their isolated spiritual retreat. The monks have been interrupting their silent meditations to wage a phone, e-mail and fax crusade against Irving which has offered a one-mile buffer. Does God take sides in logging disputes?

Critters in Crisis: Black bears are the mascot for a number of schools in Maine, including the state university. But when the real thing shows up in town, it typically causes quite a stir. A young bear, hungry from a long winter nap, got the run around in Bangor and Hampden for a week last spring as golfers, homeowners and motorists chased the bruin for close-up pictures. In Ellsworth a dog that tangled with a mother bear protecting her cubs ended up with a broken back and had to be put out of its misery. In Houlton, a teenage girl flipped her bicycle while racing from a bear she noticed wandering a back road. The bear went over and sniffed the accidental Goldilocks, then high-tailed it back into the woods. Hunters setting bait near Beddington in anticipation of the hunting season this fall had to shoo more than one large bear from rummaging in bait buckets in their pickup. About 2,400 bears are shot in Maine annually out of a population of 23,000.

At least bears get some respect. Coyotes are the Rodney Dangerfield of predators in Maine. Not only do they get no respect, most people love to hate them. And if you can demonize a critter, it is easier to justify hunting it with impunity. Last spring the Sportsman's Alliance of Maine convinced the Legislature to double funding for the "coyote control" program. Then trappers asked the Department of Inland Fisheries & Wildlife to extend the coyote trapping season by another week in October.

The only break coyotes have had lately was defeat of a bill that would have awarded hunters a coveted any deer permit for killing five or more coyotes. The bill was galloping through the Legislature before it ran into a firing squad of opposition from editorial writers. Numerous newspapers pointed out it was illogical, ineffective and a regressive return to the bounty system boondoggle.

Alan Groft of Hanover, PA, and his guide, Joseph Cabral, Jr. of Ripley, ME, have paid federal fines totaling \$4,750 for killing a wild wolf in northern Maine in 1993. At the same time, DNA testing and an autopsy have concluded that an 81-pound canid trapped and shot last fall in eastern Maine was a "probable wolf" of wild origin. No charges will be brought against the fellow who killed that one.

Both animals were found in areas identified as good wolf habitat in a recent scientific report sponsored by the Wildlife Conservation Society. This physical evidence of wolf recolonization brings hope that the top four-legged predator of the forest will be restored. Indeed, the Maine Wolf Coalition has released a poll that shows an overwhelming 79% of Mainers support natural recovery of wolves here. (Contact MWC, RR 2, Box 533, South China, ME 04358.)

Nevertheless, the recent killings demonstrate that human persecution still threatens the very ability of wolves to reestablish themselves in the Northeast. State and federal wildlife agencies have the capacity and responsibility to protect the endangered eastern

timber wolf. They have begun to get more information out to hunters and trappers. But they still say they need proof that wolves are recolonizing Maine before they aggressively start to protect the species here. How many dead wolves will it take before the wildlife agencies take more action? You might want to contact Governor Angus King (1 State House Station, Augusta, ME 04333) and the US Fish & Wildlife Service (Interior Building, Mail Stop 3012, 1849 C Street, NW, Washington, DC 20240) to suggest that they kindly have their agencies meaningfully enforce the law against killing wolves and undertake better public education to explain why the wolf is an essential part of our forest ecosystems.

One couple not waiting for the bureaucrats is John and Sue Chase of Monson. The November issue of *Outside* magazine describes how they have been howling into the night in the western Maine hills waiting for a response from *Canis lupus*.

How is it that we suffer such widespread cognitive dissonance? For thousands of years we have loved dogs, but hated wolves. Perhaps it is because we are master of the former, but not the latter. Hundreds of Mainers heard how wolves and dogs are similar and different at educational programs around Maine put on by Wild Sentry in September. Wild Sentry is comprised of Koani (wolf), Indy (dog) and their friends, Pat Tucker and Bruce Weide (humans).

By the way, to buy a spiffy new wolf T-shirt (the front has a lifelike wolf drawing; the back says "The wolf is coming home!") specify L or XL and rush \$12 to RESTORE, PO Box 1099, Concord, MA 01742. It is a great holiday gift.

If we tend to love domestic dogs, but hate wild ones, we seem mesmerized by cats, both the house and outdoor varieties. Since the last documented cougar kill in Maine in 1938, there have been more than 150 reported sightings of the wild feline, 80% of those since 1990. Some are wishful thinking, but many are not easily dismissed. Such are two reports by Willard

"I'm hoping maybe we can put the **WAR CLUBS** aside"



Jonathan Carter

"the **ALLIES** can come together and defeat anything ... the **RADICAL ENVIRONMENTAL GROUPS** bring down on the people of Maine"



Mary Adams

Brannen of the East Millinocket Police Department and Lee Dickey, Jr. a Great Northern Paper worker, who each swear they got a good look at a mountain lion in town recently on separate occasions.

Wildlife officials, under a court directive to make a decision, have admitted that another wild cat, the Canada lynx, is endangered across its range in the lower 48 states. However, in the same breath, the US Fish & Wildlife Service says it will not list the lynx as an endangered species because the agency does not have the wherewithal to help them. The "warranted but precluded" finding is being challenged by another conservationists' lawsuit. The number of lynx left in Maine is estimated at less than 200, perhaps only a few dozen.

Wolves, cougars and lynx are not the only critters scarce in Maine these days. The population of harlequin ducks in the eastern US has fallen to about 1,000 birds, nearly all of which winter off the Maine coast along a handful of islands. Two years ago environmentalists petitioned to protect the multicolored harlequins under the Endangered Species Act, but the US Fish & Wildlife Service failed to act. In April, the conservation groups sued the agency to force it to adhere to the deadlines in the law. Meanwhile, last spring, even the conservative Maine Legislature found harlequin duck numbers in such tough shape they declared the species threatened. Finally, in August, the USFWS announced that the original petition presents substantial scientific information indicating that "listing may be warranted." A full status review will be done. (Contact USFWS, 300 Westgate Center Drive, Hadley, MA 01035.)

The *Boston Globe* reports what we already knew, that MooseMaine has taken hold. Maine has more moose than any state outside Alaska. Now a lot of people want to see a live one and entrepreneurs are cashing in on that longing.

Guides are getting upwards of \$100 for moose viewing excursions. Bill Silliker's *Maine Moose Watcher's Guide* is a local best seller. Wyoming-based Mangy Moose has opened a branch store in Freeport offering more than a 1,000 pieces of mooseabilia. Moose antlers are wholesaling for \$8 a pound and retailing to tourists for a lot more. Randy Richard of Moosehead Traders in Greenville says "moose-watching is now the No. 1 reason the people come here."

Ten guys who were watching from the back of pickup trucks for moose to bag during the early October season were cited for breaking the law against hunting from a motor vehicle. However, the Maine Warden Service has dropped the charges in response to a stampede of complaints.

This summer, wildlife wardens used a sling to hoist a 400-pound moose that fell into a crevice near

Screw Auger Falls in western Maine. The animal was rescued just in time to face an expanded moose hunting season.

Wildlife officials held another hearing in Bethel to let locals vent their worries about the impact on autumn tourism of extending the moose hunting zone to their region. A week before the hearing Paul Reynolds, Dept. of Inland Fish & Wildlife Director of Information, said the agency had no intent to change its decision. The kangaroo hearing was to convince the public they were "being unnecessarily alarmed."

As in the past, the week long moose hunting season this October resulted in more than 90% of permit holders bagging a bullwinkle. Legislators have upped the number of moose that can be killed next year to 2,000. Add to that the roadkills. On average, between 1990-95, more than 600 moose were killed annually in auto collisions in Maine. Tragically, with more moose and more humans occupying the same habitat more accidents are inevitable. A few wolf packs in Maine could improve traffic safety.

Not all the critters in trouble are indigenous. It took five state troopers, a state biologist and two volunteers to bring down an emu that had been running AWOL in the woods of central Maine for a week. After jumping from a pickup truck, the flightless big bird was first lassoed and driven into an electric fence by a pair of young cowboy wannabes. Then the scared bird clawed a local man who tried to wrestle it to the ground. It was finally apprehended with the use of tranquilizer darts, handcuffs and trash bags. Probably happy to be rid of the hard-to-handle avian escapee, the owner refused to come forward and claim the animal.

One indigenous bird that is making a comeback is the wild turkey. Reintroduction has been so successful that an expanded hunting season this year ended with a record 417 birds bagged. That is a 45% increase over 1996. Another reintroduced species, peregrine falcons, are still struggling to establish viable populations in Maine. One of eight chicks hatched last spring in Acadia National Park leaped to its death as biologists were preparing to band the bird. Since the program began in 1990, more than 230 peregrines have been banded in New England. This is the first time a chick has fatally jumped from the nest.

Concerns about deformities in amphibians have been growing since students in Minnesota reported a high incidence of leopard frogs with malformations in 1995. Similar problems were found in frogs near Lake Champlain in Vermont last fall. During the summer the US Fish & Wildlife Service and Environmental Protection Agency surveyed federal refuges and parks in Maine. The source of the problem is uncertain.

Leading contenders are environmental contaminants, ultraviolet light and parasites. The fact that EPA is involved suggests the experts are worried not only about extra or missing frog legs, but about the implications for human health. To report a problem call 1-800-238-9801.

Geologist John Cummings of Bangor thinks all the public fuss about too many metals in our waters is wrongheaded. He suggests there is a correlation between massive deposits of lead, zinc, copper, mercury, arsenic, cadmium and antimony and the location of outstanding fisheries. In a *Bangor Daily News* op-ed he insists there is good "support for the theory that metal-bearing watersheds played a role in the genesis of superior fish populations."

Inland Fish & Wildlife Commissioner Bucky Owen left that job at the end of this summer. Lee Perry, who was a state biologist here years ago but who left to work in management in the Arizona Fish & Game Dept., has been brought back to be Maine Fish & Wildlife Commissioner. One well placed wag, with tongue firmly in cheek, had suggested I apply. Admittedly, I met the governor's criteria for the ideal candidate: (1) a Maine native with government management experience (13 years in the Maine Department of Conservation), (2) a connection with the Maine outdoors (been working and playing in it my whole life), (3) experience with the legislative process (a State House gadfly for over 15 years), and (4) focused on jobs (yea, especially mine). As IFW Commissioner I would have had to listen to George Smith tell me endlessly how to do my job, but then I already have to put up with that. Sorry, I said. There is not enough money in the whole state budget to entice me to step into the cross hairs of hundreds of thousands of armchair fish and wildlife experts. I am already one of the critters in crisis in Maine.

For the Record: Several notable people have moved on. Nancy W. Anderson of Falmouth died in mid November. She was best known perhaps as the founder of the New England Environmental Network. In addition, she was involved with the World Conservation Union, the United Nations Environmental Fellows Program and many other conservation projects.

James L. Robbins of Searsmont died November 8. He was the third generation to manage the family lumber and sawmill business. He also was a leader in numerous forest industry groups.

Paul "Doc" Fichtner died this past summer. Besides his medical work, he was involved in many Maine Woods issues over the past half century, from the development of Saddleback Mountain near Rangeley as a ski area to the promotion of tourism in the Moosehead region. Fichtner caused a stir when, during his nomination to the Land Use Regulation Commission, he defended his sympathies with and past membership in the ultra conservative John Birch Society.

Laurel Nelson, head of the Maine Pulp & Paper Association, and chief lobbyist for the forest industry in Maine was found dead in July at age 36. Apparently she passed away of natural causes.

Billionaire Sir James Goldsmith also died in July. It was Goldsmith's acquisition and dismembering of Diamond International Corporation's mills and lands in the Northeast in the 1980s that triggered widespread concern about the future of the Northern Forest.

Alan Hutchinson has been hired as Director of the newly reconstituted Forest Society of Maine. The organization has been transformed into a land trust essentially controlled by the major landowners who want to prove private actions can mollify the public's growing clamor for more public conservation lands in the Maine Woods. Al, formerly head of the Maine Endangered and Nongame Species program, has an excellent reputation and will be good ambassador for the large landowners.

© Jym St. Pierre. Jym St. Pierre can be reached at: RESTORE: The North Woods, 7 North Chestnut Street, Augusta, ME 04330, (207) 626-5635.



Good Reads

- Austin, Phyllis Austin. "Allagash Wilderness Waterway" in *Maine Times*, July 31-Aug 14, 1997. 3-part peek behind the beauty strip along the river hiding the clearcuts and in Augusta masking the bureaucracy.
- Brown, Lester et al. *State of the World 1998*. 1997. Worldwatch Institute. Covers global forest trends and much more.
- Bryant, Dirk et al. *The Last Frontier Forests*. 1997. World Resources Institute. Most comprehensive assessment of the world's remaining large, natural forest ecosystems. Two-thirds of our original forests are gone (95% in the US) and the rest are going fast.
- Forest Ecology Network. *The Maine Woods*. Summer 1997. Provocative 16 page tabloid; don't believe everything you read. Contact FEN, PO Box 2218, Augusta, ME 04338.
- Ferguson, Gary. *The Sylvan Path: A Journey through America's Forests*. 1997. St. Martin's Press. One man's search for people in the Industrial Age who are still "practicing the woods." The author's journey begins in Maine.
- Garvey, Ed. *The New Appalachian Trail*. 1997. Appalachian Trail Conference \$14.95.
- Gerritt, Greg. *A Campaign for the Forest*. 1997. Leopold Press. One insider's account of the ban clearcutting effort in 1996.
- Hunter, Malcolm and Aram Calhoun. *Amphibians and Reptiles of Maine*. Second edition. Forth coming 1998. Will include compact disk of the calls of many species.
- Kekacs, Andy (ed). *The Maine Woodsman*. Free tabloid for forestry folks. Contact PO Box 100, Bradford, ME 04410.
- Marchak, M. Patricia. *Logging the Globe*. 1995. McGill-Queen's University Press. Some of the data are getting a little stale, but must reading for the big picture.
- Phillips, Louise and Pam DeVito. We



"Great Falls, Fish River, Maine". Illustration to "The Lake Country of New England" by Newman Smith, *Scribner's Magazine*, October 1890.

Are the Children of the Forest.

Windswept House 1997. Kids picture book celebrating forests in poetry and song.

- *Riverdriver's Cookbook*. 1997. Eighty celebrity recipes; proceeds benefit Paul Bunyan Days. \$5. Contact The Weekly, PO Box 2237, Bangor, ME 04402.

- Roberts, Paul. "The Federal Chain-Saw Massacre," in *Harper's Magazine*, June 1997. Not about Maine, but anyone who cares about forests here cares about our public forests too.

- Rolde, Neil. *The Baxters of Maine: Downeast Visionaries*. 1997. Tilbury House. Double biography of the father-son who saved some of the most important areas in Maine,

including Katahdin.

- Schneider, Paul. *The Adirondacks: A History of America's First Wilderness*. 1997. Henry Holt. A retrospective on the first big place saved in the Northern Forest, rather than destroyed, because of its wilderness.
- Shanahan, Mark. "Thoreau's Maine Woods," in *Maine Sunday Telegram*, September 7-21, 1997. Three-part series details a search for Thoreau and the wilderness he described a century and a half ago. A companion piece has been produced by WGME-TV.
- Sullivan, Mark T. *The Purification Ceremony*. Avon Books. 1997. A thriller about a group of hunters in the Canadian wilderness who encounter a serial killer where the

hero is a woman with Native American ancestry from the Maine Woods.

- Trafton, Mark. *The Birch Canoe: A Forest Idyl*. 1996. A story in verse of a canoe trip on the Penobscot West Branch in the 1880s. Sheldon Priest, great grandson of one of Trafton's guides, has reprinted a small number of facsimile copies of this little gem. \$13. Contact Priest Genealogy Study, 17 School St., Apt. 16, Lincoln, ME 04457.
- World Wildlife Fund. *A Conservation Assessment of the Terrestrial Ecosystems of North America*. 1997. Fascinating portrayal of biological richness on a continental scale.

—Compiled by Jym St. Pierre

NEWS FROM THE MAINE WOLF COALITION

On September 17, the Maine Wolf Coalition and Wild Sentry held a press conference at the Statehouse in Augusta to publicize wolf recovery progress and efforts in the Maine Woods. Wild Sentry includes two live wolves, Koani and Indy, who do traveling outreach for their species.

After the press conference, MWC's Harry Dwyer presented Ann Larrivee of the Governor's staff with 13,000 signatures on a Maine Wolf Recovery Petition. The petition reads, "We the undersigned support wolf recovery in Maine. We request that the Maine Department of Inland Fisheries and Wildlife appoint a Wolf Recovery Coordinator and we support the expenditure of State and Federal monies for the purpose of conducting research into the status of the eastern timber wolf in Maine and southeast Quebec, the likelihood of wolf recovery without reintroduction, and the impacts and possible benefits of wolf recovery."

Although the Governor and his new Inland Fisheries and Wildlife Commissioner Lee Perry have so far failed to respond, the petition has been forwarded to Secretary of the Interior Bruce Babbitt.

At the press conference, MWC president John Glowa presented results of a wolf attitudes survey which indicates a broad spectrum of support for wolf recovery. Natural wolf colonization had the support of

79% of respondents, with 62% of hunting license holders also indicating "some measure" of support. Although the survey found that hunters tended to be more knowledgeable about wolves and their habits, it also found that almost a third of them are unaware that shooting wolves is illegal in Maine (see "Maine Woods Watch", page 25). A similar number of hunting respondents indicated they would kill a wolf if they saw one. The Department of Inland Fisheries and Wildlife intends to conduct a similar attitude survey before proceeding with any recovery effort.

In the current Maine Wolf Coalition newsletter, president Glowa urges greater protection for such wolves as are present in the Maine woods. Citing hearsay evidence that wolves *are* present and being shot, Glowa recommends that all large canids killed in the woods be brought to state biologists—with the sticking point being the current fines for shooting wolves. Glowa states: "The Maine Wolf Coalition is neither anti-hunting nor anti-trapping. We are pro-wolf. We believe wolves can coexist with legal hunting and trapping and vice-versa."

MWC also plans to proceed with fundraising for a Northeast Wolf Center which will "serve as a focal point for wolf recovery through research and education programs." One fundraising idea under consideration

and in need of volunteers is an Appalachian Trail Relay in September 1998. The relay would cover the 281 miles between the Maine/New Hampshire border and Mt. Katahdin. Hikers would cover one of seven segments, or the entire distance, with sponsors offering donations either by the mile or by the trail segment. Contact Jim MacMichael at 207 474-6588 if interested.

One last note: as the Eastern Timber Wolf populations of Minnesota, Wisconsin and Michigan expand their range, it is expected that the species will be removed from the endangered species list throughout its range—including Maine. However, there is evidence that the Lakes states wolf is not the eastern timber wolf. In any case, the Maine Wolf Coalition urges the US Fish & Wildlife Service Recovery Plan for this species to be re-written to focus on efforts in the Northeast.

The Maine Wolf Coalition publishes a newsletter with important news and information for wolf supporters. You may join the Coalition and receive the newsletter by sending \$10 (\$15 for family, \$50 for organizations, \$100 for businesses) to: Maine Wolf Coalition, Inc., RR2 Box 533, South China, ME 04358-9232.

The Coalition also welcomes wolf sighting information. Please call their hotline at 1-800-818-WOLF.

Wolves in our Backyard: The First Annual NE Wolf Recovery Conference

by Kristin DeBoer

This October, the nonprofit organization, Wild Canines Unlimited and Antioch New England Graduate School hosted the first annual New England wolf recovery conference, *Wolves in Our Backyard: Exploring Recovery Through Art and Science*. The event was a sure and strong sign that a wolf recovery movement is rapidly growing in northern New England and New York.

Sold out well in advance, the conference was attended by 150 people from around the region. A variety of workshops covered wolf recovery proposals in the Maine Woods and Adirondack Park, the wolf in Native American culture, wolf taxonomy and the Endangered Species Act, the Wisconsin experience in wolf recovery, and learning how to advocate for wolves. The new Eastern Timber Wolf Recovery Network, comprised of eighteen wolf advocacy organizations, announced its formation. Kids of all ages were thrilled to see the ambassador wolves from Mission: Wolf. And, the grand finale was an evening of song, theater, and art celebrating the wolf, and its imminent return home.

To anyone attending this conference, it should have been clear that the conversation about wolf recovery has dramatically shifted. The question is no longer *should* wolves come back, but when and how *will* they return? This level of debate was nearly unthinkable just five years ago. But, now the prospect of eastern timber wolf recovery seems almost inevitable.

That is because wolf advocates and educators are disseminating information about the issue and the public is responding positively. At this conference, as well as through school presentations, slide shows, tabling at events, and radio shows around the region, people have been spreading the word that it is possible to have wolves back in the North Woods of New England and New York. If we are successful in our efforts, wolf recovery will be more than



LUOMA

When the Wolves Return - A Property Rights Zealot's Winter Nightmare

just a trend. It will be an enduring act of restoration that will put an animal, that once lived here for hundreds of thousands of years, back where it belongs.

There are other scent markers which show that wolf recovery is on the move too. In September, the Maine Wolf Coalition released a public opinion poll which found that nearly 80% of Mainers favor wolf recovery in Maine. This finding substantiates a poll sponsored by Defenders of Wildlife in 1996 which found that 87% of Northeasterners favor wolf recovery in the Adirondacks. Two ambassador wolf programs, Wild Sentry and Mission:Wolf toured throughout the region during September and October, reaching thousands of children and adults, and getting an almost unanimously friendly reception. The State of New Hampshire has taken the lead to

become the first in New England to officially endorse "Wolf Awareness Week." The State of Maine is taking initial measures to research whether pioneer wolves have migrated from Quebec and to educate hunters on the differences between coyotes and wolves.

There are several advantages in advocating for wolf recovery in the Northeast. First, we know it can be done. Successful wolf recovery precedents in Yellowstone National Park, Central Idaho, Montana, Minnesota, Michigan, and Wisconsin have broken the trail. The excitement generated and lessons learned from the west can only help to advance efforts here. Second, we still have wild areas large enough for eastern timber wolves. Preliminary studies show that there are vast forested areas in the North Woods that would make good wolf habitat (low human population density, few roads, and lots of prey species, such as moose, deer, and beaver). Third, there are not many sheep and cattle in the North Woods. Where livestock do exist, wolves may be perceived as less of a threat because we have smaller family farms, unlike the large open ranches where livestock graze in the West. Finally, the people of the Northeast may be the most receptive to wolf recovery of any population in the country. This region has already provided much of the support for wolf recovery efforts out West. Now we are poised to redirect that support back to the East.

Despite the strength of this growing wolf recovery movement, wolf enthusiasts cannot afford to sit back on our haunches just waiting for wolf recovery to happen all by itself. If we want wolves to come back on their own, we must ensure that there are safe corridors for them to travel through from Canada. Where wolves can't repopulate themselves, they may need to be reintroduced with the help of federal and

state wildlife agencies. To ensure quality wolf habitat large tracts of forest must be protected from threats by excessive road building, logging, real-estate development, and other industrial activities. But, the major obstacle preventing wolf recovery is government inertia. Trends show that wolf recovery is a popular idea in the Northeast, but the wildlife agencies won't take responsibility until the people demand that they do so. If the people will lead, our public agencies, and hopefully the wolves, will follow.

The Wolves in Our Backyard conference was surely only the first of many more to come. Indeed, by the early 21st century "wolves in our backyard" may be not just a title for a conference, but a reality that the public has come to appreciate and embrace.

What You Can Do to Assist Wolf Recovery

Urge the U.S. Fish and Wildlife Service to prepare an Environmental Impact Statement (EIS) that analyzes the potential for wolf recovery in northern Maine, New Hampshire, Vermont, and New York. The EIS should be done in partnership with the four states and ensure full public review and participation. Also contact your members of Congress and tell them how you feel about wolf recovery.

Jamie Rappaport-Clark
Director
U.S. Fish and Wildlife Service
1849 C Street, N.W.
Washington, DC 20240

For more information contact:
RESTORE: The North Woods PO
Box 1099, Concord, MA 01742.

Kristin DeBoer is Program Coordinator for RESTORE: The North Woods.

Isle Royale

a place where the wolves are wanted,
where human beings bring our awkward blessings to
moose bone, wolf scat, loon song.
where we allow ourselves to blossom
among marsh marigold, rock harlequin,
calypso orchid, labrador tea.
where we peel back layers of
fog, moss, rock itself—
Inside there is sunlight
Inside there is wolfsong
the light step of the moose,
berries waiting to ripen
where the wind never touches—
All this light
at the heart of things.

—Gary Lawless

Wolves Know No Boundaries

The Need for US - Canadian Cooperation In Protecting Wolves and their Habitat

by Kristin DeBoer & Kathleen Fitzgerald

This September RESTORE: The North Woods spoke of the need for US-Canadian cooperation in protecting wolves and their habitat at the Canadian Council on Ecological Areas Conference in Fredericton, New Brunswick. The following is an excerpt from the presentation, which was co-written by with the Greater Laurentian Wildlands Project Coordinator, as a collaboration in our efforts to restore wild and free wolves to the North Woods of the United States and Canada.

To date, the majority of American wolf recovery efforts have remained within the borders of the United States. However, the eastern timber wolf belongs to the ecosystems that both of our countries share. The wolf, like the bald eagle, salmon, rivers and air, do not recognize our political boundaries. Indeed, if the eastern timber wolf returns to the northeastern US, whether through natural recolonization or human reintroduction, there will be social and ecological impacts not only in the states of New England and New York, but in the adjacent provinces of Ontario, Quebec, and New Brunswick. The restoration of the eastern timber wolf to the northeastern United States cannot, and should not, happen without close cooperation between the US and Canada.

The eastern timber wolf once roamed across the North Woods from the Atlantic Coast to the banks of the Great Lakes, through southeastern Canada to the Hudson Bay. Then the United States initiated a devastating war on the wolf which lasted for two and a half centuries. The last wolf was eliminated from the Northeast in the early 1900s. Fortunately, Canada continued to provide refuge for wolves. However, they have been extirpated from the Atlantic provinces and south of the St. Lawrence River. Surviving eastern timber wolf populations are considered vulnerable by many Canadian conservationists. In fact, wolves are protected in less than 2% of their Canadian range.

The irony and challenge facing eastern timber wolf recovery is this: Canada has wolves, but they are scarcely, if at all, protected. The United States has strong federal protection for wolves, but self-sustaining wolf populations in the Northeast are non-existent.

Ecological Bottom Line: Core Habitat & Connectivity

Identifying and protecting core habitat is a critical first step for wolf recovery. For wolves, protected habitat essentially means freedom from human persecution. Assuming that prey populations are sufficient to support wolves,

the major concern for protected wolf habitat is to minimize conflicts with human beings. This requires low human population density, low road density, and public support.

Parks and preserves presently offer the most protection for wolves in both the US and Canada. For example, Algonquin and Jasper in Canada and Glacier and Isle Royale in the US protect wolves from hunting and trapping. Unfortunately, when wolves leave these refuges they run the risk of being legally hunted in Canada, illegally killed in the US, and accidentally killed by cars in both countries. Due to human-induced mortality outside their borders, these protected areas, like many others in North America, are too small to maintain long-term viable populations of wolves.

There are several initiatives in the US and Canada to increase protected core habitat for wolves. In Canada, The Wildlands League is promoting a buffer for Algonquin Provincial Park to give wolves additional protection from hunting and trapping. RESTORE's proposed Maine Woods National Park would provide 3.2 million acres of core habitat for recovering wolf populations. These initiatives could become the first steps toward protecting core habitat for the eastern timber wolf in both countries.

The second challenge is to identify and protect corridors between occupied wolf habitat in Canada and potential wolf habitat in the US. Connectivity is needed, if for no other reason than wolves have demonstrated a need for connectivity within their historical habitat, across our international border. Two wolves, and perhaps more have already dispersed from Canada to the US.

The Wildlife Conservation Society and The Wildlands Project have each done scientific studies to determine existing and potential corridors between Southeastern Canada and Northeastern United States. Their research has revealed some encouraging information—that large areas of potential wolf habitat and some corridors may already be suitable for wolves. However, industrial logging, development, and roads all pose significant challenges for dispersing wolves. Enlarging corridors by removing roads and halting development, for example, may be necessary to restore contiguous wolf habitat and ensure that it is safe for wolves, now and far into the future.

There is a Russian proverb, "A wolf is kept fed by its feet." We must provide enough space for wolves to be kept fed by their feet. If that means wolves need to roam outside national parks, outside national borders, outside the confines of our desired wolf management areas, then conservationists must accept that challenge. In the long term the protection of core habitat and corridors will be necessary, whether wolf recovery is accomplished through natural or artificial means. For wolves to successfully migrate to the US from Canada, safe corridors could encourage this natural dispersion. If wolves are reintroduced into the US, protected core reserves and



Summer Nightmare

corridors will help ensure the genetic, social, and evolutionary viability of the eastern timber wolf.

Social Bottom Line: Public Acceptance & Appreciation of Wolves

Protecting habitat for wolves, and other species, is not merely an ecological challenge, it is a social one. While the most straightforward approach to wolf recovery may be to draw a line around a protected core habitat, the broader protection of buffers and corridors requires the acceptance of wolves by the human beings who live, work, and play in those areas.

RESTORE and The Wildlands Project have the long-term goal of promoting more than just tolerance of wolves, but broad public acceptance and appreciation of their presence. Often, however, the scope of wolf recovery efforts in the U.S. and Canada have remained limited to the patrolled borders of our national parks. For example, the reintroduction of wolves to Yellowstone was, in part, contingent upon an implied guarantee to the public that wolves would remain within predefined boundaries. This approach may be an acceptable starting point for recovery. However, if we stop there, we may end up with little more than open-air zoos with wolf populations that are intensively managed, manipulated, and controlled.

If we can build authentic public support for protecting wolves, in addition to designating permanently protected areas, then wolves may be free to roam throughout the landscape, across our international borders. The wolf recognizes no political boundaries, and demands that we understand that fact.

A bi-national wolf recovery effort that focuses on protecting large areas of connected wolf habitat in the US and Canada will take no less than in-depth ecological knowledge, working advocacy coalitions, strong public acceptance, and real governmental leadership in both countries. While this is certainly a great

challenge, it is not just an academic exercise. We can reach these goals, and in the process protect and restore much more—the bioregion, biodiversity, and cultural connections that our countries share.

Kristin DeBoer works for RESTORE: The North Woods and Kathleen Fitzgerald formerly coordinated the Greater Laurentian Wildlands Project.

A Chance to Get it Right

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resource, we should be able to steer our future to ensure strong demand for our logs at good prices and create a bountiful resource of worthwhile timber to cut forever. All this will take is a more conservative approach toward harvesting timber and a nurturing of our quality growing stock.

If we continue to mismanage our forest resource, life will become very difficult for us all. Worthwhile stands of timber will become hard to find. Less timber will be harvested each year because of depletion. Mills will start closing down. New Hampshire's timber industry will go into hibernation for years while our forests re-grow.

When we are worried about our health or the health of a loved one, our concentration focuses like a laser. Suddenly there is a clarity about all life because you realize what is important. Living is important. Every day is a gift. You ask for another chance to get it right. We have that chance with our forests only now. We have a chance to get it right and feel very grateful that it wasn't too late. We have the power to change our lifestyle and move from a feeling of lack and deprivation to a feeling of abundance and fulfillment. The better we manage our forests the more abundant they will become, making our own individual businesses successful at the same time.

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Contested Terrain: A New History of Nature & People in the Adirondacks

by Philip G. Terrie, Adirondack Museum/Syracuse University Press, Syracuse, 1997.

If you are interested in understanding the historical and ecological roots of the current debates, disputes, and crises in the Adirondacks, read Phil Terrie's new history of the Adirondacks. Terrie states his aim in the first paragraph of the book: to "connect current conflicts to their historical, social, and cultural roots." To this end, he set out to include "narratives about the land and its potential" and to tell the stories of year-round residents "whose voice has been noticeably absent in most previous efforts to write Adirondack history." (page xv)

Terrie traces the rise of upper and middle class recreation and tourism in the Adirondacks after the 1830s, and he contrasts it with the perspectives, needs and values of year-round residents—farmers, hunters, loggers, and guides. From the beginning, there were conflicting visions of the Adirondacks: to some, it was romantic nature, an antidote to the evils of the industrial revolution and civilization; to others, it was a natural resource to be exploited by a growing nation.

Even as a hardy cadre of year-round residents was settling the Adirondacks in the decades before the Civil War, most of the land was already owned by downstate wealthy speculators who viewed the Adirondacks as a source of wealth through mining, timbering, and real estate speculation. To the residents of the Adirondacks, the forest was a resource and an obstacle to farming and development, as well as a home that was cherished.

Already before the Civil War, the Adirondack forests were dominated by outside capital. Raw log exports had already begun to limit economic options for residents. Early logging operations did not do much clearcutting (except in the eastern portions of the park where demands of the iron industry for charcoal had disastrous results) because timber barons were only interested in spruce and white pine.

Some things never change; treat-



Even after the establishment of the Forest Preserve and Park, New Yorkers feared that corruption and collusion between state officials and logging barons remained a threat to Adirondack forests. *New York Herald*, 30 March 1903. Reprinted from *Contested Terrain*

ment of loggers a century ago was brutal. Terrie writes: "... most logging companies continued to pay little heed to human welfare issues like consistent wages, benefits, retirement, and safety. Employers often conspired among themselves to keep wages low." (page 152)

By the late nineteenth century and into the early years of the twentieth century, timber barons often defaulted on taxes and forfeited their lands after they had stripped the merchantable spruce and pine. The overcutting was so bad that by 1910, over half of the pulpwood consumed in New York pulp and paper mills was imported from Canada.

Although the state initially did not want these lands, no private owners stepped forward, and so the state began to acquire substantial holdings in the Adirondacks. This, combined with a long campaign by downstate interests (journalists, wealthy business men, aristocratic sports, and transportation interests worried that overlogging would adversely impact water levels in the Hudson River), culminated in the creation of the Adirondack Park in the 1880s and early 1890s.

The perspective of the year-round residents was ignored, including the possibility that they might also love the land around them. Romantic writers of the period described the Adirondacks as if it were unpopulated, much the way the first Europeans saw North America and its "invisible" Native peoples. The legislation creating the Park glossed over the fact that it was a mix of state forest lands, now designated as "Forever Wild" by a 1894 amendment to the New York Constitution, and private lands owned mostly by timber companies, wealthy downstaters, and exclusive hunting and fishing clubs. Terrie notes: "Much of the recent uncertainty in the Adirondacks derives from ambiguities and shortcomings in the original legislation [to create the Adirondack Park]." (page 83)

Despite these problems, support for the "Forever Wild" covenant was strong throughout the state. In 1896, an effort orchestrated by the timber companies and their friends in the New York legislature to reverse the "Forever Wild"

protections and permit logging on State Forests was resoundingly defeated statewide; every county in the Adirondacks rejected the measure.

However, the Park did cause resentment among many year round residents. Traditional firewood gathering was now prohibited on state forest lands. Game laws set the hunting season in late summer to accommodate tourists, thereby infuriating residents whose out of season hunting was aggressively fought by the state.

In the concluding chapter of *Contested Terrain*, "A Crisis Looms," Terrie debunks some of the false dichotomies that have been used by opponents of the Adirondack Park Agency, which was created in 1973. He writes that the "insider-versus-outsider" conflict has "dramatic political appeal" but it conveniently omits a third party—"the cadre of developers and real estate lawyers who stood to make fortunes if no restraints were placed on the development of private land in the Adirondacks." Furthermore, he notes, many long-time residents support the Private Land Plan of the APA as essen-

tial to "protect a way of life they thought was threatened by uncontrolled development." Finally, he writes, "the oversimplified story of rich-versus-poor also failed to note that virtually all of the land [regulated by the APA's] Resource Management classification" was owned by corporations, clubs and wealthy families with bases outside the blue line. (pages 172-174)

Critics of the APA have charged that it has caused economic hardship to the residents of the Park. Terrie cites a study by the New York Department of Labor that showed that employment in the park rose by 25 percent from 1985-1992, while declining slightly in the rest of the state.

Regarding the future of the Adirondacks, Terrie deserves to be quoted at some length: "The question of Adirondack history is, whose narrative of the land will prevail? Or, to look at it more optimistically, can a new narrative be constructed that seeks accommodation, that sees the Adirondacks as a cultural landscape with people and nature, and thriving, healthy opportunities and protections for both?" (pages 182-183).

His final paragraph reads: "In the Adirondacks we have a landscape that could be a model for the world. It is a place where people live and where nature matters, where it is just this combination, this interrelationship between people and nature, that defines the place, provides its meaning, constructs its narrative. If we think of the Adirondack Park as one big place rather than in terms of distinct landscapes within it—the villages and private land on the one hand and the Forest Preserve on the other—then we have a place that can be both functional and protected. If we can say that the failure of the New York legislature over a century ago to decide just what is wanted in the Adirondacks is the beginning of what has become the latest and most promising Adirondack narrative, then the irresolution of 1892 might be seen as a stroke of incredible good fortune." (page 183)

—Reviewed by Jamie Sayen

LET'S EAT STARS

A New Volume of Poetry by Nanao Sakaki

The Whole Earth Review called Nanao Japan's Environmental Wildman, Spiritual Voice, Iconoclastic Poet and Earth Wanderer." He has been wandering the Earth's wild places since leaving the Japanese military in 1945, and is currently in Japan defending wild rivers and protesting the coming environmental destruction of the Japan Olympics. His new book, *Let's Eat Stars*, published by Blackberry Books, contains Nanao's poems from 1968-1997, as well as three plays.

Let's Eat Stars is available from Blackberry Books, 617 East Neck Road, Nobleboro, Maine 04555, Gulf of Maine Bioregion. Tel. 207-729-5083. Price is \$11.95 (paperback).

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LET'S EAT STARS

Believe me, children!

God made
Sky for airplanes
Coral reefs for tourists
Farms for agrichemicals
Rivers for dams
Forests for golf courses
Mountains for ski resorts
Wild animals for zoos
Trucks and cars for traffic tragedies
Nuclear power plants for ghost dance.

Don't worry, children!
The well never dries up.

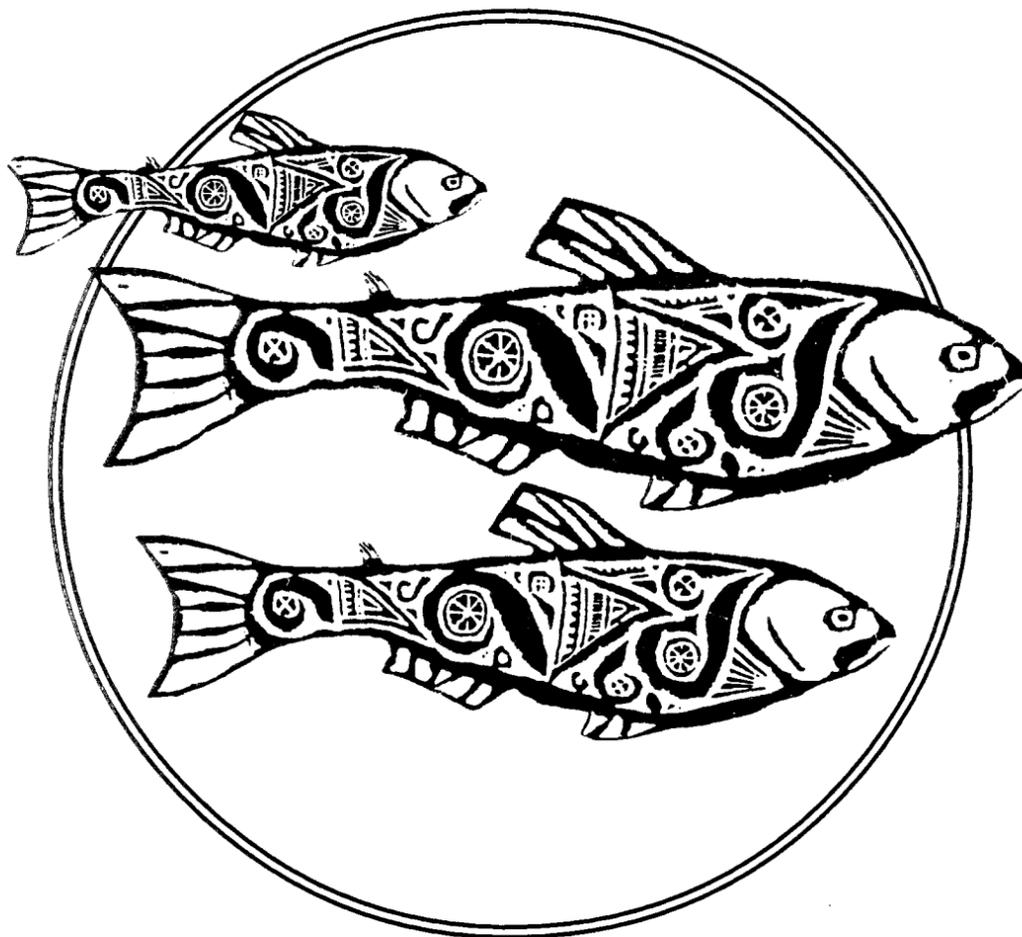
Look at the evening glow!
Sunflowers in the garden.
Red dragonflies in the air.

A small child starts singing:

"Let's eat stars!"
"Let's eat stars!"

by Nanao Sakaki

Sept. 1988
Mt. Taisetsu, Japan



*Poem "Let's Eat Stars" from a new book of poetry by Nanao Sakaki, published by Blackberry Books
Salmon drawing is by Bikki Sunazawa, Ainu artist and friend of Nanao's
For information on how to order "Let's Eat Stars", see page 31.*