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The Northern Forest Forum

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WORKING FOREST



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Overlooks Biodiversity
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The Northern Forest Forum "Indispensable"

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The Northern Forest Forum is published six times a year by the Northern Appalachian Restoration Project (NARP).

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

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Editorial Policy of The Forum

Editorial views expressed herein are those of the writer and not necessarily those of other contributors or other NARP projects. We welcome diverse submissions on the Northern forest and related topics. Please send all material to the address above.

Please address letters for publication specifically to the editor.
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Editorial

Working Landscapes & Wilderness

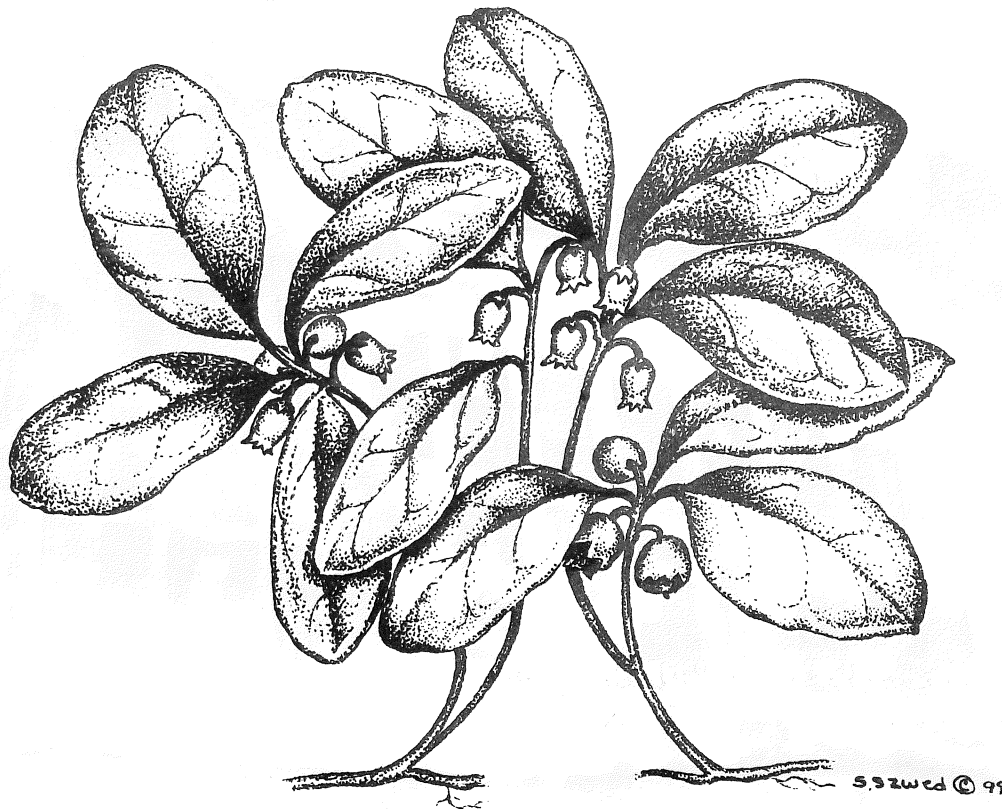
We generally devote the middle pages of the Forum to some one topic; and in this issue it is economics. This is fitting in an issue which also scrutinizes an economic construct of a natural environment, 'The Working Forest.'

Many people may believe that an environmental ethic embracing Wilderness preservation or restoration must necessarily run counter to the economic interest and

extreme contempt at people living on the land. If this has been a goal, we've failed.

A landscape devoid of loggers and farmers and others living from the land is indeed a regrettable symbol of divorce and separation from Nature—a cultural failure. Several thoughts on that.

First, what really disemploys people in the rural sector and forces them from the land? Wilderness fanatics or, could it be, economic



cultural values of rural inhabitants.

Academics have joined the argument with their Amazing Discovery that Wilderness advocates are guilty of a Man-Nature duality. This precludes our being able to envision Man Abiding with Nature. (Such scholars ought to read our basic Judeo-Christian parable the Book of Genesis.)

A sane view might however suggest 1.) Preservation can create economic opportunity in the wider landscape 2.) A system that would commodify every square mile of earth is neither sustainable or desirable.

A radio commentator in Montpelier remarked recently that people in the Northeast Kingdom do not support the idea of Wilderness. Instead, we are told, they support 'the traditional working landscape.'

I can think of all varieties of exception to this soporific, but that would require a page or a book. Mostly I am struck by the peculiar attitude that a rural populace, unlike an urban one, has but one point of view. This is not true of people in Montpelier . . .

The traditional working landscape has meant many things to the Northern Forest. The successful tenure of people on the land here has been the admirable exception, as testified by high rates of out-migration and easy predation by speculative forces. Our wider economic system, overall, has looked with

imperatives? A flight over the state of Maine or even a drive up Route 3 into New Hampshire's de-nuded hills gives a visual clue . . .

If we are serious about creating employment opportunities in logging, we have to address logging issues. If we are serious about conserving biodiversity and other, human values immanent in Wilderness, then we have to set some land aside from economic uses. Simple, isn't it?

Second, there is the precedent attitude of the first people and cultures to live here in the Northern Forest. We could stand to learn something from the people whom our European diseases, poisons, political boundaries and weapons dispossessed and demoralised.

Our cultural predecessors considered certain places sacred, such as Ktaadn and the White Mountains: sacred enough that they didn't go into them.

Certainly, as we consider our economic system, and our desire to connect to the land, we can save some places where our noise, our machines, our economy, our monetary and other quotidian interests do not intrude. Or can we?—Andrew Whittaker ☘

by Peter Sterling

CHAMPION LAND DEAL UPDATE

In January, the Washington DC-based non-profit Conservation Fund (CF) arranged to purchase the 133,000 acres of Champion International land in Vermont. This land includes many areas of unique and special ecological interest including Vermont's largest free-flowing stream, the Nulhegan River, the state's largest deer wintering yard, several rare bogs and fens as well as habitat for unusual or rare species such as the spruce grouse, the black-backed woodpecker and the gray jay.

CF's plan calls for reselling 85,000 acres of timberland with conservation easements to a yet unidentified number of timber companies, selling 26,000 acres to the Silvio Conte National Wildlife Refuge and selling 22,000 acres to the state of Vermont. To complete the deal, CF has asked the Vermont legislature to appropriate \$4.5 million for public access easements on the 85,000 acres of timberland and hopes to generate another \$6.5 million from the sale of the timber rights on the 85,000 acres of timberland. Two private foundations are also providing support for the project.

Currently, there is no purchaser for the timber rights to the 85,000 acres of timberland. Timber investors may be shying away from the purchase because Champion liquidated most of the standing timber leaving little to be cut in the coming decades and because of the additional burdens that will be created by the conservation easements and the possible Outstanding Resource Water designation (see below).

Protecting the Champion Land Through Outstanding Resource Water Designation

The Sierra Club, the Vermont Natural Resources Council and the Audubon Society have petitioned

the state Water Resources Board to designate the entire Nulhegan watershed (a relatively development-free and intact watershed within the

exempted for being enrolled in Current Use. Neither enrollment in Current Use or having a Forest Management Plan is a guarantee that proper forest



Champion Forest in Nulhegan Basin.

Champion land) an Outstanding Resource Water (ORW). ORW designation would severely limit the activities that could damage water quality.

However, bowing to pressure from Republicans in the Senate and House (and with a quiet wink and nod from Governor Howard Dean), in a historically unprecedented move the House of Representatives passed an amendment prohibiting ORW designation from applying to the 85,000 acres of timberland. This amendment sets an appalling and dangerous precedent by essentially exempting the waters on the 85,000 acres of Champion land earmarked for sale to timber investors from some of the environmental protection laws of the state. Should the state also exempt ski areas, industrial timberland owners and large developers from these or other environmental laws?

Once in the hands of a timber company, the 85,000 acres may again face heavy cutting pressures from the new owners trying to recoup their investment in the land. The state of Vermont must step in and purchase the timber rights to the 85,000-acre parcel. Once the state owns the timber rights, it will be able to "land bank" them until the timber grows back and logging can be done in a profitable and ecologically sound manner. At that time, the state could recoup its investment—with interest—by reselling those timber rights to responsible private investors, or the state could retain those rights if desired.

Heavy Cutting Law Update

Those familiar with Act 15, the Heavy Cutting law, have long known that the law is only as strong as the rules that are enacted to govern the permitting process. Unfortunately, the legislature's intent to have additional rules in place for heavy cuts as the law states to protect "soil productivity, water quality, wetlands, riparian zones, significant wildlife habitat areas, unique or fragile areas, regeneration, scenic quality and unusual environmental events," was absent from the recommendations presented by the Rules Advisory Committee hand picked by the Commissioner of Forest and Parks Connie Motyka.

The final report on the Heavy Cutting law presented to the legislature noted that as of January 1999, 187 applications for heavy cuts were received and only two of these permits were denied. Of the 187 applications, 60 were exempted for having a Forest Management Plan in effect and 55 were

practices are being implemented. Under the 185 permits approved by the Department of Forest and Parks, a total of 27,535 acres were heavy cut, an average of 149 acres per heavy cut. As currently enforced, the Heavy Cutting law has done little to deter or mitigate the effects of large timber operations.

In mid-January, Commissioner Motyka presented the House Natural Resources Committee with his Advisory Committee's Final Report which included suggested permanent rules for implementing the Heavy Cutting law. The fact that the proposed rules failed to adequately address soil productivity, wetlands and significant wildlife habitat shocked the House committee. The rules also fail to provide adequate buffer strips along streams. Still permitted are cuts that would leave only one 10" dbh northern hardwood tree every 25'. As proposed, Vermont's rules for heavy cuts are significantly weaker than the regulations for non-heavy cuts in nearby states such as New Hampshire, Connecticut and Massachusetts.

However, thanks to some last minute work by Forest Watch, the Sierra Club and the Vermont Natural Resources Council the committee asked Commissioner Motyka to come back in late March with a more detailed outline of how his department intends to meet the legislative intent of the Heavy Cutting law.

At the very least, the heavy cutting rules should require:

- Minimum of 100 foot no-cut buffer strip along streams
- Requirement that buffer strips provide adequate shade for stream and aquatic life
- Mandatory implementation of all Acceptable Management Practices as a requirement for the permit to perform a heavy cut.
- Remove the exemption of cuts that are part of an approved management plan. All heavy cuts, whether a management plan is in place or not, should adhere to the rules governing heavy cutting.

Concerned Vermonters should call House Natural Resources Chair Mary Sullivan at (802) 828-2228 and ask her to support strong rules to implement the Heavy Cutting law.

Peter Sterling works for Forest Watch in their Montpelier office and also serves on the board of the Vermont chapter of Sierra Club.

While Vermont Slept—Missing the Boat on Biodiversity

by Andrew Whittaker

As we head to press on February 19, it seems likely that the Vermont Senate will approve an appropriation of \$4.5 million that will make the state a stakeholder in the Champion land purchase. This money, considered necessary to the overall deal, ensures conservation and development rights purchases on the 85,000 acres of intended timberland and further leverages private foundation money that will deliver the state some 23,000 acres of public land. So far, so good.

As this appropriation item moved through the House and Senate, however, defects in the non-strategy of Vermont's 'environmental community' became clear. What emerged from the House was a bunch of amendments that might be likened to tails pinned on the donkey—put there by Dems themselves to appease Reps who, in large measure, voted against them anyway.

Discussion of these amendments was fairly one-sided and feeble. Over in the Senate, the same circus continued, with—as we head to press—one Senator circulating a 16 page

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New Hampshire Fighting to Remain in 19th Century

Legislation Threatens Northeast Wolf Recovery Efforts

by Kristin DeBoer

The New Hampshire Legislature is considering proposed legislation that would be a serious setback for the Northeastern wolf recovery movement. Two bills have been introduced prohibiting the reintroduction of wolves into the Northeast, and especially New Hampshire. These bills would stifle public discussion and hamper constructive involvement by the state agencies in wolf recovery study and planning efforts. fuel for anti-wolf/anti-wildlife forces. [The NH House passed HB 240 on a vote of 223-115.]

On January 27th, a House committee met to hear testimony from both sides of the bill. Several state, regional, and national conservation groups and state residents gave compelling testimony or comments opposing these bills. Groups involved include New Hampshire Audubon, New Hampshire Sierra Club, New Hampshire Wolf Alliance, National Wildlife Federation, RESTORE: The North Woods, and Society for the Protection of New Hampshire Forests. The central argument used to oppose the bills is this. No one is mandating wolf reintroduction. Instead the public is asking for the idea of wolf recovery to be deliberated in an informed and positive manner. The proposed legislation would discourage this process.

Unfortunately, other groups such as the New Hampshire Farm Bureau, New Hampshire Timberland Owners Association, the New Hampshire Wildlife Federation supported the bill.

Among their arguments: wolves would endanger personal safety, halt logging operations, infringe on private property rights, decimate deer herds, and cause damage to livestock. Based on experience with wolf recovery in other parts of the country, these concerns are either invalid, based on misinformation, or can be reasonably addressed as part of a wolf recovery plan.

Sadly, some House committee members based their decision more on fear than fact. On February 3, The Wildlife and Marine Resources Committee voted in favor of the anti-wolf bills 12 to 7. The next vote will take place in the full House and Senate where there is still a chance that the bills will be defeated.

Natural Recolonization or Reintroduction?

For millennia wolves lived throughout the Northeast. But, by the turn of the century the wolf was completely wiped-out in this region through bounties, over-hunting, and habitat destruction. Since the early 1970s wolves have been protected as an endangered species. Today, the nearest eastern timber wolf populations live in Quebec and Ontario.

Some who support this legislation claim that they would accept the wolf returning from Canada on its own, but not through 'artificial reintroduction.' This

position sounds like a reasonable compromise. Yet, the misinformation written into the proposed legislation indicates the proponents are no friends of the wolf. Indeed their entire argument is based on the false predication that wolves will take away their rights. In the words of one proponent of the bill, "Wolves will keep us prisoners in our own homes!"

Most wolf advocates would prefer to let nature

species' only chance. To pass legislation that would forever preclude this option is unwise and certainly premature.

A Northeast Wolf Recovery Plan

The reason these anti-wolf bills are moving forward is because opponents are afraid that wolf recovery is making real progress. The U.S. Fish and Wildlife Service has received so much public support already that the agency has decided to begin designing a regional recovery plan for the eastern timber wolf in Maine, New Hampshire, Vermont, and New York during the winter of 1999. Indeed, it was this news which prompted the proposed anti-wolf legislation.

A recovery plan is a blueprint to restore an endangered or threatened species. It will not mandate wolf reintroduction. Instead, a recovery plan will finally allow the public, state agencies, and landowners to participate in making an informed decision about if, when, where, and how wolf recovery should take place across the region. Furthermore, it will assess whether natural recolonization is possible or if reintroduction may be needed for wolves to return.

This will be the first chance for concerned citizens across the North Country and Northeast to hear the facts and to speak their minds on wolf recovery. If people say they want wolves to return to the region, it will be a strong mandate for positive action. If they say they do not want wolves, there is little chance that a wolf recovery program will be implemented.

Certainly, there are those who strongly oppose wolf recovery, and that is their right. However, they do not have the right to deny the broader public an honest, educated, and open discussion of all the issues. This is the only way to ensure that the people of New Hampshire and the Northeast have the chance to make up their own minds, and the forum to tell their public officials what they want to happen.

Conservationists and other concerned citizens are urging the state of New Hampshire not to stifle public discussion, but to be an active and positive participant in the recovery plan process. Once all the facts are in, and the public has spoken, hopefully New Hampshire will choose to help welcome the wolf back to the North Woods.

WHAT YOU CAN DO: Call NH State Senators and Governor Jeanne Shaheen and ask them to oppose anti-wolf bills, HB 240 and HJR 1. New Hampshire residents will be key, but no matter where you live please take action. This is a regional and national issue. HJR 1 requests that the federal government prohibit the reintroduction of wolf populations to the entire northeastern United States, not only the state of NH.

Call Governor Shaheen at 603-271-2111 or write State House, Concord, NH 03301 or call. For more information see www.statenh.us

Kristin DeBoer is Wolf Recovery Coordinator for RESTORE: The North Woods.



Tee Bee, an Alpha Female wolf.

take its course. For years, several groups have been taking measures to encourage wolves to recolonize the region naturally. We are working with Canadian activists to protect their dwindling wolf populations, where wolves have little if any protection from hunting and trapping. In the U.S. state wildlife agencies in New Hampshire and Maine are starting to educate hunters and trappers on the difference between wolves and coyotes. This may help to discourage the accidental shooting of possible dispersing wolves. However, the outcome of these endeavors is at best uncertain. A migrating wolf faces many obstacles between the Northeast U.S. and southeastern Canada, including the St. Lawrence Seaway, swaths of developed areas in Canada, and the difficult search for a mate if they succeed in their journey. If the public really wants to wolves back in the region, reintroduction may be the

1999 Big Year for Eastern Timber Wolf Recovery

by Kristin DeBoer

Wolf recovery is on the move in the Northeast. No longer just the wild dream of a few wolf enthusiasts, the wolf recovery movement has captured the attention of bureaucrats, supporters, opponents, governors, state and federal agencies, conservationists, and the general public. For six years, grassroots support for wolves has been building across the region. However, this fall one key

event put wolf recovery on the official map of conservation issues in the Northeast.

On September 29, the U.S. Fish and Wildlife Service (USFWS) announced that it will develop a recovery plan for the eastern timber wolf for Maine, New Hampshire, Vermont, and New York. This news came on a brisk autumn day in the White Mountains of New Hampshire at a meeting of interested parties, including conservation groups, landowners, and state and federal wildlife agencies.

As explained in the minutes of the meeting, a wolf recovery plan "includes the tasks necessary and agencies responsible for implementing recovery, identifies funding sources, provides a timetable for recovery, and identifies biologically sound recovery goals." A USFWS recovery plan would be done in cooperation with state wildlife agencies and provide for public hearings and lengthy public comment periods. The entire recovery planning process should take about two years to complete.

Get Ready to Howl

Make no mistake, this is a victory for wolf advocates. All of our letters, phone calls, editorials, conferences, and gatherings of support have finally shown the USFWS that the public supports wolf recovery. While the commitment from USFWS to do a recovery plan does not guarantee that wolves will return to the region, it does mean that 1999 will be a pressing and important year for the eastern timber wolf. It will be a time for public hear-

Continued on Page 5

Wolf Recovery cont...

ings on the issue. The news media will be watching to see who supports and opposes the issue. Those opposed to wolf recovery will be ready to take action.

And, so must we. This is it. This is the real thing. This is the time for all those concerned about the ecological health of the Northern Forest to take up the call for the wolf's return home. If you have been waiting for a reason to join the growing chorus of wolf advocates in the Northeast, now is the time to get involved. Wolf recovery will only happen if supporters speak out.

Those Opposed Saying 'Nay'

Indeed, those who oppose the wolf are already getting organized. In New Hampshire, some state representatives are pushing for anti-wolf legislation prohibiting the reintroduction of wolves into that state (see article in this issue). The Sportsman's Alliance of Maine is claiming that the wolf will take away their traditional hunting rights. And, in the White Mountains some members of the Pulp and Paperworkers Resources Council (an industry front group) organized a protest and petition drive claiming that "wolves would keep us prisoners in our own homes."

Those opposed to wolf recovery are vocal, but they are outnumbered by wolf enthusiasts, conservationists, and concerned citizens. Remember that the numbers are on the wolf's side. Opinion polls show that public support for wolf recovery is high, around 80%. Two scientific studies show that there are over 26 million acres of forest across northern New England and New York which would make good wolf habitat, due to the low human population and road density.

The wolf's prey, moose, deer, and beaver are also returning by the tens of thousands across the region. Altogether, the Northeast could probably support a population of about 1,300 wolves. Extensive scientific studies in Yellowstone National Park show that wolf recovery has greatly benefited the full range of biodiversity there. Wolves have been shown to bring home 'the bacon', too. In Ely, Minnesota, the International Wolf Center generates \$3 million each year for the local economy.

Wolf Events

The development of a Northeast wolf recovery plan is an historic opportunity. In response wolf advocates are stepping up our outreach in the region to get supporters prepared to speak out. The following page lists some recent and upcoming events in which RESTORE is involved.

In October, a conference entitled 'Wolves and Human Communities' was held at the Museum of Natural History in New York City. RESTORE participated in discussions on the ethical implications of wolf reintroduction into the Adirondacks.

In November, Defenders of Wildlife sponsored their bi-annual 'Wolves of America' conference in

REPORTS FROM THE NH WILDLIFE AND MARINE RESOURCES COMMITTEE

HJR 1
STATE OF NEW HAMPSHIRE

In the Year of Our Lord One Thousand Nine Hundred and Ninety-Nine

A RESOLUTION requesting that the federal government prohibit the U.S. Fish and Wildlife Service or other federal agency from introducing wolf populations to the northeastern United States, especially New Hampshire.

Whereas, there may be attempts to reintroduce the wolf population in the northeastern United States, including northern New Hampshire; and

Whereas, citizens of northern New Hampshire are protesting such reintroduction of the wolf; and

Whereas, local residents fear that the wolf reintroduction will harm moose and deer populations and have a negative impact on the regions which depend on timber harvesting; and

Whereas, local residents fear that once wolves are reintroduced by wildlife officials, responsibilities and problems resulting from wolf reintroduction will fall on local residents; now, therefore, be it

Resolved by the Senate and House of Representatives in General Court convened:

That the general court of the state of New Hampshire hereby urges the federal government to prohibit the reintroduction of wolf populations to the northeastern United States, especially New Hampshire; and

That copies of this resolution be sent by the house clerk to the President of the United States, the President of the United States Senate, the Speaker of the United States House of Representatives, the U.S. Fish and Wildlife Service, and each member of the New Hampshire congressional delegation.

HB 240
STATE OF NEW HAMPSHIRE

In the Year of Our Lord One Thousand Nine Hundred and Ninety-Nine

AN ACT prohibiting the reintroduction of wolf populations to the state of New Hampshire.

Be it Enacted by the Senate and House of Representatives in General Court convened:

Statement of Intent. If the federal government permits the states to reintroduce wolf populations, the intent of this act is to prohibit the reintroduction of wolves to the state of

New Hampshire.

I. For the purposes of this subdivision, 'wolf' means any canine classified as *Canis lupus* or *Canis rufus*.

II. No person or state agency shall reintroduce wolf populations to the state of New Hampshire.

This act shall take effect 60 days after its passage.

HB 240, prohibiting the reintroduction of wolf populations to the state of New Hampshire. MAJORITY: OUGHT TO PASS MINORITY: INEXPEDIENT TO LEGISLATE.

Committee Debate

Rep. Richard E. Fletcher for the Majority of Wildlife and Marine Resources: "The proponents of this bill are opposed to the re-introduction of wolves to New Hampshire, not opposed to the wolf returning to New Hampshire naturally. Much discussion and debate has been held on this issue as recently as last fall's program at the AMC (Appalachian Mountain Club) Headquarters in Pinkham Notch. The owners of the public land in the North Country that would be the location of any re-introduction effort as well as the majority of North Country citizens are opposed to wolf re-introduction as evidenced by the more than 2,000 signatures gathered in support of this bill. The New Hampshire Fish and Game Department, the Fish and Game Commission, New Hampshire Farm Bureau, New Hampshire Timberland Owners, New Hampshire Wildlife Federation, and many sporting clubs all testified in support of HB 240. Naturally return, fine. Artificially re-introduced, no." Vote 12-7.

Rep. Dennis F. Abbott for the Minority of Wildlife and Marine Resources: "This bill is truly unnecessary legislation. The fact that the Endangered Species Act requires the feasibility of re-introducing wolves to the northeast be explored is not cause to enact policy when no program or action is proposed. Passing this legislation only precludes our state agencies from participating in the debate. While agreeing that we may not have the necessary habitat nor the social conditions to support their presence, it is important that we maintain a dialogue with those interested parties and not be viewed as being closed minded. Additionally, testimony offered indicated that their presence would not interfere with current forestry practices while, in fact, timber harvesting creates habitat preferred by wolves and other animals. At the very least we should cast aside our fears and misconceptions and no longer be intimidated by an idea and allow the process of discussion to proceed when and if an action of some type is actually proposed.

HJR 1, requesting that the federal government prohibit the U.S. Fish and Wildlife Service or other federal agency from introducing wolf populations to the northeastern United States, especially New Hampshire. OUGHT TO PASS."

Rep. Allen K. MacNeil for Wildlife and Marine Resources: "Since the majority of the committee followed the recommendations of the New Hampshire Fish and Game Department, Fish and Game Commission, New Hampshire Wildlife Federation, and others in recommending HB 240 Ought to Pass, it naturally follows to support a resolution letting the federal government know our stand on the wolf re-introduction issue." ❀

Seattle. RESTORE presented a talk on eastern timber wolf recovery.

Wolf recovery will only happen if supporters speak out.

In December, RESTORE held a 'Wolf Enthusiasts Workshop' in Keene, New Hampshire to train individuals how to become more effective advocates and educators for wolf recovery. RESTORE is planning additional grassroots workshops around the region this year.

In January and February, the Eastern Timber Wolf Recovery

Network, comprised of 30 regional, national, and international groups, organized a series of informational meetings for conservation groups in New Hampshire, Vermont, and Maine to let them know where wolf recovery is headed in the Northeast.

This winter, the U.S. Fish and Wildlife Service (USFWS) is expected to publish its proposal to do a recovery plan for the wolf in the Federal Register. RESTORE is encouraging concerned citizens to participate in the extensive public comment period and hearings which will be held across the region.

What You Can Do...Please write to the USFWS and thank them for initiating a wolf recovery plan. And, write the Governor of your state to urge them to participate positively in this recovery planning process.

Paul Nickerson
U.S. Fish and Wildlife Service
300 Westgate Center Drive
Hadley, MA 01035

**More wolf news—
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Maine Forest Biodiversity Project

Notes from a Collaborator

by Mitch Lansky

Mitch Lansky concludes from his participation in Maine's Biodiversity Project that while collaboration may be good for something, it isn't the best avenue for creating public policy that would actually halt or reverse species decline.

This is a story about an experiment in an issue with the potential for great controversy—forest biodiversity.

For the uninitiated reader, biodiversity is a shortened way to refer to biological diversity—the variety of life at all of its levels and including all its processes. It is controversial because there is evidence that the diversity of genetic types, species, and ecosystems is declining world wide at an alarming rate.

While the earth has had major declines in biodiversity over the past billion years and recovered from them, the recoveries have taken tens to hundreds of millions of years. In the past, the causes of decline have been climatic changes and, perhaps, cataclysmic collisions with extra-terrestrial bodies. The major reason for

The three decided that the time was ripe for a collaborative approach that could, perhaps, avoid the more inflammatory confrontations that were occurring in the Pacific Northwest on forestry issues. Another collaborative process, the Northern Forest Lands Council, had just ended. One of its suggestions was for states to take action on biodiversity issues. To initiate this action, the three broadened the original group to include members from industry and academia to form a steering committee. This committee decided to focus on the northern forest region because of the potential for large changes. Most of this land is owned by a handful of landowners.

In May of 1994, the Maine Forest Biodiversity Project held its first conference at Embden Lake resort. More than eighty scientists, environmentalists, citizen activists, representatives of state and federal agencies, the forest products industry, and other landowners came together. Many attendees came to learn more about biodiversity and see what common ground might exist. Another motivating factor for attendees was fear of what mischief might happen if they did not attend. Some members, apparently, joined the process precisely because they intended mischief—they were opposed to the goals of the project.

This first conference set a pattern that was to continue for the next five years—



Richard Griffith, No. 2 St. Regis Forester, tells Betty and Mel Ames, and Bill Vasquez, reporter and landowner, what wonders we are beholding. St. Regis imported Griffith directly from Montana to liquidate Maine; junior foresters joked that he was lonesome for the Big Sky country.

current decline seems to be human activities—especially practices that convert, simplify, or fragment native wildlife habitats. These habitat changes, combined with chemical pollution, introduction of exotic species, over-exploitation, and human-induced climate change have had devastating impacts on some species in some regions.

Scientists have recommended several key strategies to deal with biodiversity loss in forests. These involve changes in forest management integrated with a system of reserve lands off-limits to timber harvesting. Some interest groups feel threatened by either option.

Project Origins

The issue of reserves is not new in Maine. Under a 1989 legislative mandate, Janet McMahon of the Maine State Planning Office conducted a study of a proposed statewide system of ecological reserves designed to protect a representative array of ecosystem types. A number of problems, including a lack of funding, caused her report to languish, with no promising follow-up in sight. Cathy Johnson of the Natural Resources Council of Maine, Roger Milliken of Baskahegan Lands, and Kent Wommack of The Nature Conservancy decided to take action to get this study on track. To do this, they reasoned, they would have to get wider support from the forestry community. Since Roger was on the board of directors of both the Maine Forest Products Council and the Natural Resources Council of Maine, he was in a good position to bring in both industry and environmentalists.

Scientists have recommended . . . changes in forest management integrated with a system of reserve lands off-limits to timber harvesting. Some interest groups feel threatened by either option.

facilitated large and small group discussions with an emphasis on reaching consensus on a variety of issues. There were also featured speakers. Reed Noss, editor of

Conservation Biology and Daniel Botkin, author of *Discordant Harmonies: A New Ecology for the 21st Century*, introduced the group to some of the concepts and controversies surrounding biodiversity and also suggested some goals for protecting biodiversity in the region.

Priorities for Action

The issues raised by these speakers and by the group set the agenda for the rest of the

MFBP's existence. The group agreed to pursue three major tasks:

- Assess biodiversity in Maine—its status and trends.
- Review and follow-up on the McMahon report on ecological reserves.
- Identify and implement 'biodiversity friendly' forest management practices.

This latter goal would be accomplished by workshops for forest managers or development of a Maine-based manual or series of pamphlets. These goals were to be accomplished through volunteer subcommittees.

How the Process Worked

One would think that such an agenda could probably be accomplished within a few years. Actually, the Project lasted nearly five years, and the final product (a forester's guide to biodiversity) is only now being published. Along the way there were many more two-day conferences. These conferences were closed to the general public and the press. A majority felt that removing the press would allow the project to be a 'safe haven' for members to speak and think as individuals, rather than representatives. The public and press missed witnessing: eloquence, hilarity, foolishness, anger, despair, and mind-numbing boredom. For all but the committed process geeks, exercises with colored dots and wordsmithing trivial consensus statements edged toward the latter categorization.

The process was useful at weeding out the shy (who were at a major disadvantage in larger sessions) and the 'misfits'—ones who did not feel comfortable with either the goals or the process. Some members dropped out; others came only occasionally. This had an impact on continuity to some extent, but the core players did remain fairly consistent.

The use of facilitators and consensus was helpful at times and annoying at others. While the rules of engagement helped maintain decorum and gave members a sense of safety, they sometimes led to a lack of incisive debate on issues that should have been explored at greater depth. The rules were also not always consistently followed. Some of the facilitators, for example allowed industry members to demand an absurd form of 'politically correct' language—where no one was allowed to refer to 'problems' (or any word with a similar meaning). Talking about 'problems', these participants argued, implied that landowners had done something wrong. Indeed, some industry members suggested that we did not need to recommend solutions because no one had demonstrated that there was a problem.

These restrictions on discourse were a form of stonewalling. Since we could not talk about problems, we obviously would be unable to demonstrate that they exist and therefore would not be allowed to recommend solutions. Similarly, some participants claimed not to understand what was meant by 'biodiversity' and did not want to proceed any further until they were satisfied with a tight definition. This went on for several years.

At one meeting, some landowner representatives demanded that environmentalists should renounce any political action on forestry legislation while the project was in existence. Facilitators, unfortunately, allowed discussion of this inappropriate demand. The suggestion did get argued down, however. This was one of many incidents that nearly led me to quit.

What actually happened is that the Maine Forest Biodiversity Project survived two referendums far better than anyone from any side could imagine. The Ban Clearcut and Compact referendums created major tension between and within interest groups that participated in the MFBP. Without informing project members, some MFBP steering committee members, anxious to create biodiversity policy, injected a mini biodiversity reserve provision into the Compact with embarrassing consequences. After the election, steering committee members and facilitators prepared themselves for angry fights—but these did not happen. The MFBP community, it turned out was a safer haven than many expected.

One feature of the project that led to ongoing tensions was that some members intended the project as a policy-making body, while others saw it merely as a source of information and a tool to build relationships. To the degree that some group members tried to create policy, others resisted. This helped to drag the process out.

Limits of Consensus

Consensus works best in groups that share similar goals. The process can help a group find common interests that all can feel comfortable pursuing.

Consensus does not always work well in the policy arena where there are two sides with diametrically opposed views. In such cases, where it takes consensus to create change, those defending the status quo have a clear advantage. Blocking consensus prevents change. The MFBP could only move as fast as industry members (who, after all, owned the land) wanted to go.

We had a clear consensus on some group goals, such as that we could, "using the best information available, engage in a constructive and respectful discussion about biodiversity in Maine's forests." We could not find total consensus on issues that veered into policy. For example, we could not even agree on whether existing knowledge was adequate for us to come up with suggestions to benefit biodiversity.

Since we could not talk about problems, we obviously would be unable to demonstrate that they exist . . .

While a majority insisted that there should be no reserves created that would require restrictions on surrounding land, this also did not reach full consensus. The process worked both ways.

Even worse, there were some items we could not even discuss because large landowner representatives threatened to quit the process. We could discuss maintaining current levels of biodiversity, for example, but not restoration or biological integrity. We could talk about potential reserves on public lands, but not on private land. We could discuss creation of small reserves, but not the option of large reserves, even though conservation biology is clear that when it comes to reserves, the bigger the better. The result was that even if we had succeeded in our limited allowable vision, we would not have been able to protect biodiversity.

After a number of environmental participants threatened to quit, the steering committee allowed an evening presentation on the case for large reserves, such as the Maine Woods National Park. During this session, opponents to large reserves proved that they could be moderately well behaved (pacing, moans, and eyeball rolling were kept to a minimum) when faced with opinions with which they disapproved. The issue, however, was not debated.

Products

With the end of the project this year, the three original goals had turned into three major products. In 1996, the project published a two volume study, *Biological Diversity in Maine: An Assessment of Status and Trends in the Terrestrial and Freshwater Landscape*. In 1998 the project published *An Ecological Reserves System Inventory: Potential Ecological Reserves on Maine's Existing Public and Private Conservation Lands*. This year the project will publish a forester's guide to biodiversity (actual title has not yet been finalized). In 1998, the project also released an analysis of US Forest Service inventory data to see if this document could yield useful data to assess the status of biodiversity in the forest. And in the fall of 1998, the project put on a public conference.

BDIM. Jamie Sayen, founder of the Northern Forest Forum, called *Biological Diversity in Maine (BDIM)* a "very important document." It summarizes what is known in Maine about biological diversity on a species, genetic, and ecosystem basis. For some species groups, such as arachnids, fungi, bryophytes, and most insect groups, there is very little known. This study asked the question, "Is there a problem with biological diversity in Maine?" While it states that there is no crisis in Maine (compared to Hawaii), it also concludes that: "YES, THERE IS A PROBLEM." (sic) This conclusion was quite refreshing, since we had spent so many meetings trying to avoid the implication that something might be wrong. For some strange reason, some state and industry representatives have had no trouble quoting the sentence about the lack of a crisis, but they habitually neglect to add the conclusion that there is a problem.

Even the incomplete data shows serious problems:

- the loss of plant and animal species;
- a significant proportion of plants and animals that are rare, threatened, or endangered;
- high numbers of exotic plants and insects;
- a disturbing proportion of fresh water ecosystems that are dramatically altered;
- a severe deficiency of old-growth stages in most ecosystem types.

The study ends with these words: "If we do not initiate biodiversity-maintenance strategies now, we will be faced with a loss in biological diversity that will be more difficult to address in the future."

ERSI. The Ecological Reserve System Inventory (ERSI) was controversial from the start. Some project members were opposed to any reserve system, at first. This stance changed to supporting only 'benchmark' reserves—defined as "areas of natural or minimally-disturbed habitats that can serve as control or comparison areas to measure the effects of human activity and management on similar habitats in the same region." In other words, a 'control' to the experiment of 'management.' Researchers were only allowed to look for potential reserves on public lands or private conservation lands. In one bizarre session, several industry representatives argued (successfully) that the researchers were not even allowed to show on maps how ecosystem types spilled over to private lands. Sometimes this overlap onto private lands is obvious—with wetlands, for example.

Some people assumed that 'benchmark' reserves would be relatively small. The Scientific Advisory Panel (SAP), suggested that the average size would need to range from 5,000 to 12,000 acres to provide habitats that remain viable despite the largest expected disturbances. Following similar guidelines, New Brunswick came up with a minimum average size of closer to 60,000 acres. The Maine document was based more on plant communities, but the New Brunswick document included animals.

The inventory, however, came up with a median size of only 1,893 acres on the potential reserves. This is far less than the minimum of 5,000 acres recommended by the Scientific Advisory Committee. Indeed, only 25% of the potential reserves on public and conservation lands have the SAP's minimum recommended acreage.

The potential reserves found on public lands are not adequate to create a complete ecological reserve system with representatives of ecosystem types in each geographic region. Only 16 of the 69 potential reserves are 'self contained'—where the ecosystems to be protected fit into the reserve boundaries. Only 46% of ecosystem types are represented at least once by geographical area in the potential reserves.

A key assumption allowing the Scientific Advisory Panel to endorse such small reserve sizes is that "Managed forest lands surrounding potential

If we do not initiate biodiversity-maintenance strategies now, we will be faced with a loss in biological diversity that will be more difficult to address in the future."

reserves can connect rather than isolate reserves over time." The larger group did not adequately discuss or test this assumption, yet it is central to the project's approach to protecting biodiversity. Indeed, the widescale clearcutting, insecticide spraying, herbicide spraying, highgrading, and

liquidation that have been going on over the last few decades have been the main reason why we were debating forest biodiversity at all. The inventory study did acknowledge that if this landscape, "were highly altered by development or other land uses, larger reserves would likely be needed to ensure the viability of the ecosystems they contain."

Foresters Guide. One would think that the most controversial of all the products would be a manual on managing forests for biodiversity. I was on the subcommittee that directed this product and was surprised at the degree to which there was agreement, rather than controversy. This was a very diverse group, yet it was still productive.

The management book is loaded with informa-

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tion and contains references to a broad array of literature on management and biodiversity. While the conclusions and recommendations are not always strong, the background material can be helpful to landowners who genuinely want to maintain biodiversity in their managed forests. Indeed, I recommend this book to anyone considering Low-Impact Forestry. This is one of the more important contributions of the MFBP.

FIA. The project also has published *An Investigation into the Potential of Measuring Biodiversity in Maine's Forest with Forest Inventory and Analysis (FIA) Data*, by Andrew Plantinga and Tom Allen. The authors of this exploratory work had to deal with a difficult, and sometimes contradictory or missing data set. It therefore has less value than some of the other products, but points to the potential of such an approach in the future.

Public conference. After four years of closed-door meetings, the project put on a conference on forest biodiversity that was open to the general public and to journalists. While the conference content was old news for members of the MFBP, for some public participants it was an eye-opening experience. Unfortunately, the press did not show up. After all these years, the general public in Maine is still getting much of its information about biodiversity from those describing it as a Communist/United Nations plot.

What Next?

Although the project is now over, some of the work of the project is continuing. Here are a few of the spin-offs:

- The Bureau of Parks and Public Lands and the Department of Inland Fisheries and Wildlife have been assessing the potential of setting up ecological reserves on public lands.
- State foresters will assess their management of public lands in light of the recommendations in the book.
- John Hagan of the Manomet Bird Observatory is starting a new organization, the Forest Ecosystem Information Exchange, to identify information gaps, spur new research, and have several conferences a year on topics of interest to participants. This group will not try to create policy or achieve consensus.
- David Cortemanch, of the Department of Environmental Protection, is setting up an Aquatics Work Group that will try to use a collaborative process to address fresh water ecosystem issues in Maine.
- The Nature Conservancy, and other groups, are working with large landowners to help set up private reserves. Information about the location and type of these reserves is not available to the public. It is possible that some of these reserves are not permanent.
- There are bills before the legislature that would either mandate the creation of ecosystem reserves on public lands or make it close to impossible. Some of the latter bills have been submitted by former MFBP member, George Smith of the Sportsmen's Alliance of Maine.

Meeting Low Expectations

Was it worthwhile? Would forest policy on biodiversity be any further along now if the MFBP had not

occurred? Roger Milliken, in summing up the experience, wondered if members would have been as committed to the process if they had known the likely outcomes from the start. Many people who started with the project thought that it was going to create policy. Members stayed with the process out of fear of what others might do in their absence—as well out of an interest in biodiversity. “It was a classic [but unintentional] example of bait and switch,” he

said, acknowledging that the final product was information, not legislation.

Cathy Johnson also wanted, at first, to see the McMahon study turned into policy. “Obviously we still have more work to do to get ecological reserves established on the ground, and even more work before biodiversity in Maine is truly protected.” Ultimately, however, she feels, as does Roger, that the effort was worth while. “I think the effort is moving forward productively—probably more productively than any other path I might have chosen at the time to accomplish the same ends.”

Jamie Sayen, who quit the project, concluded that discussions were not fair, honest, or science-based (as advertised), but were instead restricted and weakened due to the landowner threats of quitting. “Many well-meaning members of Maine's conservation and scientific communities,” said Sayen, “are willing to acquiesce to this corruption of democracy and science in the desperate, misguided belief that if we make such concessions to appease the unappeasable agents of the large landowners, maybe they'll permit us to take a few small steps to protect some fragments of land that are 'representative' of Maine natural diversity.” Sayen contends that such a strategy, “squanders valuable political capital in the fight for an inadequate and inappropriate solution so that there probably will not be the political will to address the root problems any time soon.”

While I was on the verge of quitting a number of times, I ended up staying the course. I reasoned that the Maine Forest Biodiversity Project did not stop me from advocating and working for Low-Impact Forestry, or reserves, or forestry reform outside of the MFBP. I concluded that the project, due to its makeup, was incapable of creating any meaningful policy. It could, however, get funding to do useful research. And it did do useful research. My low expectations of the project were mostly met—but I do feel that the products were valuable.

Subtext & Subtleties

The project did something more subtle, however. After years of discussing issues of biodiversity, there is now a large community of professionals who have a much deeper understanding of the subject than they other-

wise would have. This may translate, eventually, into a change of practices. The project members also know each other better, and this has already translated into a change in relationships. I find I can have much more civil dialogues with my industrial colleagues. We can disagree over issues without personal attacks. At least, not to my face.

I fully predict that some landowners will use the concepts and jargon of biodiversity that they learned in the project as part of a campaign to convince the public that their companies are 'green.' Biodiversity will be an embellishment to industrial forestry rather than an operating principle. A few dead trees left here. A clump of trees left in a clearcut there. Bigger riparian zones over here. A few (term) mini-reserves there. It is not hard to predict this, because some landowners are already doing this.

Industrial foresters can point to recommendations from the Maine Council on Sustainable Forest Management, the Sustainable Forestry Initiative, the Triad, or the Shifting Mosaic to help justify their short-rotation, intensive practices. Indeed, Irving's Black Brook district, the most intensively, chemically-managed forest landscape in the region, has just been certified 'green' by Scientific Certification Systems. The forest industry has an impressive budget to help the public 'understand' the subject in an industry-friendly way. Clearly the biodiversity debate is not

Conclusions

Policy makers are going to use collaborative processes, like the Maine Forest Biodiversity Project, to deal with other issues. Those who participate in such exercises can learn from our experience. Industry, which had a lot to lose, did not lose much from participating. It could be argued that industry representatives actually gained time and valuable public relations points. Environmentalists failed to take the lead in educating the public. If they thought the project was going to do this for them, they were wrong. Without an informed public, the odds of getting public support for policy changes are low.

I believe it is a mistake to try to create policy with such a collaborative process—and that is why I opposed using the project for such purposes. One key to success in negotiations is to have the alternative to negotiation be less attractive to participants than continued negotiations. In collaborating on voluntary changes to biodiversity policy, large landowners could easily do without environmentalists, but environmentalists could do little without landowners—unless they were to push for non-voluntary changes. Environmentalists, therefore, tended to accommodate and compromise to keep industry at the table. Forest communities and forest ecosystems, however, have not given environmentalists the authority to compromise away their rights.

Industry/environmental collaborations have a fairly consistent history in Maine. After the negotiations are over, the real negotiations, with the legislature, start to happen. The compromise worked out in good faith within these collaborative groups can be demolished by those who were not part of the process (and sometimes by those who bargained in bad faith). This happened with the Forest Practices Act, the Northern Forest Lands Council, and the Forest Compact. Given recent proposed legislation, it now appears it is happening with the Maine Forest Biodiversity Project, even though the project did not make unified policy proposals.





If It's Wild, It's Working

by Sue Higby,
Green Mountain Forest Watch

There exists a new and biased way to describe and categorize our environment. Policy leaders, scientists, environmental advocates, loggers and students have all come to use the terms 'wild woods' and 'working woods' to specify, with what they think greater completeness, the different kinds of forests in our region. Is this an example of the way our language is shaped by our cultural biases or is it more a statement of our political myths and mythmakers?

When our language takes a quick turn like this, it is important to grapple with the reasons. Creating a sharp distinction between words 'wild woods' or 'working woods' implies that wild woods are not working, are somehow dysfunctional, lazy or even idle. Certainly nothing could be farther from the truth. Wild woods perform essential ecological services, support robust economic activity, and renew the human spirit in ways that so-called working woods cannot.

It is worth reflecting on a piece of conservation history. The primary intent of Congress in setting aside wild forest reserves more than one hundred years ago was watershed protection: a fine example of how wild woods are at work. The theory pioneered in the late 1890s was that wild forests absorbed rainfall, retarded stream run-off, and increased the level of ground water; in addition, that these forests retarded snow melting in the early months of the year, reduced spring floods, and saved water for summer use when supplies ran low; and retarded soil erosion.

Our language constantly evolves and we need to be careful about the terms we adopt because they shape our perceptions of reality and possibility. We need to replace biased, value-laden terms like 'working woods' with more objective and accurate terms like 'timberland': land managed for timber production. By contrast, wild woods are forests that are freed from timber cutting and road building.

The conservation movement in recent years has embraced a new vocabulary that transparently reveals the politically expedient view that resource use is inherently 'good' and rational, and that efficiency is achieved through use. (It should not escape us that the word 'resource' suggests that an object must have some use to humans, which disregards, in some respect, the intrinsic and non-utilitarian values that forests, wildlife, and wilderness possess.)

In addition, attitudes have changed towards wild woods, what with the advent of scientific forest management techniques, corporate interests with short planning horizons, and forestry research supported by corporations. Moreover, we have become compliant to the interests promoted by people advantaged by rapid resource use, the mythmakers. And why not: money talks.

That wild woods—wildernesses—are inherently of lesser value to our society is one of the most blatant and unfounded myths that has emerged. Not surprisingly, our limited conservation dollars are now being used almost exclusively to purchase working woods—timberland—instead of wild woods in Vermont and around our region.

This is counterintuitive. I hear the economic arguments for investing in timberland and not in wilderness, yet national studies demonstrate that the existence of wilderness creates new, lasting jobs and strengthens local economies. I hear about the need to invest in wood supply, yet in Vermont each year loggers cut less than 1/3 of the annual volume of wood that grows. I hear about demand for high quality wood products, yet realize that one-half of the hardwood logged from our National Forests is used to produce shipping pallets

and the discard rate for these pallets in New England is 65 percent.

We have an exciting opportunity in Vermont today: both conserving wild woods and managing timberland for the future. Authors Christopher Klyza and Stephen Trombulak, also teachers at Middlebury College, set out in their recent book, *The Future of the Northern Forest* to inform

people of these possibilities. They wisely cautioned in their introductory remarks that, "the public dialog on these issues has the potential to be framed to present a choice between a healthy economy and a healthy environment. We feel that this is both simplistic and unnecessary."

Similarly, our public dialog should not be framed as a choice between wild woods and working woods: it is simplistic, unnecessary, and just plain wrong. Both wild woods and timberland are essential to the future of Vermont and the planet. They both do important work. They are both important to a healthy economy and a healthy environment.

Our public dialogue needs to acknowledge that we have almost no wild woods in Vermont and an abundance of timberland. For this reason, our conservation efforts need to include ways to increase the wild

Letter from Oregon The Working Forest is Broke, Why Fix It?

Word has reached Oregon about big changes in the Maine Woods. Forest management here is also changing. Oregonians are deciding that forests are more important for recreation, fish and wildlife habitat, and watershed protection, than logged.

Our timber industry is a shadow of its former self. Oregon's economy prospers, nonetheless. Oregonians are finding that we cannot have our forest and clearcut it too.

Both Oregon's and Maine's forests are in crisis. The Chinese ideogram for 'crisis' is a combination of their ideograms for 'danger' and 'opportunity.' Oregon's simply came a little earlier.

When an old guard loses power, it responds by doing what it always has done, only harder and louder. Politicians always respond by giving subsidies to a dying industry in vain attempts to prop them up.

The 'working forest' system of Maine no longer works. The tragedy would be for politicians to try to fix it.

•We have a global economy. Less private timber will be owned by people who care about land. Absentee corporations are only interested in maximizing profits. Market pressures demand maximum profits that demand maximum timber exploitation. Public recreation, fish and wildlife habitat or watershed protection are coincidental public values, which don't help—and increasingly harm—the corporate bottom line.

•Massive modernization—necessary to remain competitive—is sweeping both woods and mills. Computers, robots and lasers replace people. Even if the same amount of timber is cut, far fewer jobs result.

Jobs are a cost, not a benefit, on a corporate balance sheet.

•Fiber is fungible. Technologic improvements allow paper and construction products to be made out of recycled fibers, non-tree fibers or cheaper tree fibers from elsewhere on the globe.

•Money grows faster than trees. A saving account will yield a better return than growing trees and with no risk of being burned or eaten by insects. The corporations still buying timberland are practicing last-buffalo-hunt economics: mine timber today, though it doesn't pay to grow tomorrow.

•Forests are more valuable for development, than for wood. A depleted forest is not very valuable for growing timber, but can be quite valuable for second homes. When development pressures hit, all possible government subsidies can't adequately armor an obsolete industry to successfully compete.

The working forest can't be fixed, but it can be replaced because:

•Forests are more valuable for watershed, habitat and recreation, than for wood or development. The beneficiaries to pay for the benefits; especially when they have been getting them (albeit at a reduced level) for free.

•Forests are cheap. Especially if you buy in bulk. The best way to protect forests from development is public ownership. Should the public buy just development rights, which allow continued heavy logging?

Should it acquire conservation easements so more protection is given to public values? Given that conservation easements can often cost most of the full market value, shouldn't the public just buy the land outright to achieve maximum public benefits and return on its investment?

Where to get the money?

•Look to redirecting existing government subsidies to the timber industry.

•Consider a transfer tax on the sales of both rural timberland and urban lands.

•Advocate for a federal tax to discourage carbon dioxide emissions into the atmosphere to reduce global warming and to use the revenues to convert private timberlands into public forestlands. The single best way of sequestering atmospheric carbon is in long-lived forests.

Two of Maine's greatest conservation successes are Baxter State Park and Acadia National Park. Does anyone today say these were bad ideas?

The working forest served a purpose, but let's not forget that public values from industrial timberland were never first rate. They were always secondary and therefore second rate. Public values are better protected in older forests—older than industrial owners can tolerate. They are best provided by unlogged forests.

The intersection of Bowater at Main in Freeport was built extra wide to allow the huge ship masts cut from Maine's woods to make the turn to the docks. Today, any log in Maine could roll down Bowater at no risk to shoppers on sidewalks.

The Maine Woods should no longer be mainly for wood.

Andy Kerr lives Oregon's Willamette Valley. He was a key player in making the northern spotted owl a national issue. He now writes and consults on forest issues and may be reached at
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woods in our state, which is now 1 percent of the forestland in Vermont compared to the national average of 5 percent. We need more wild woods in Vermont for many reasons, but two are abundantly clear: wild woods work hard and efficiently, and everything works better with wild woods.

Sue Higby, Deputy Director, Green Mountain Forest Watch which works to save and create wild forests and reform public land management. ❀

Working Landscape: A Metaphor of Human Exploitation

by Stephen G. Perrin

Excerpts from the writer's Comments on the Draft Report of the Northern Forest Lands Study, 1989

As one whose primary focus is on metaphors, the perspectives they represent, and the impact they have on human behavior, I will begin by commenting on the metaphor of a **Working Landscape** which carries so much weight in the vision giving structure to this report.

Putting **Working** and **Landscape** together to make a **Working Landscape**, the image controlling our vision becomes more potentially restrictive. A **Working Landscape** is not an ecosystem, a habitat, an environment, a wilderness, or even a forest. It is a factory run by humans where nature is employed to meet human needs. As long as it does so, it will be certified as an economic and scenic resource to be duly appreciated by the human community. But let it once get behind in its production quota and see how fast its certification will be rescinded.



Irene and Joel Butler on the first big St. Regis clearcut, c. 1919, a former mixed-softwood stand on the Machias River in Eastern Maine.

Here, instead of humans acting in a manner consistent with the ongoing health and well-being of the forest, we have the reverse, the forests having to conform to the will of one of the species to which it offers nourishment and shelter. Nature having to comport itself as an adjunct to human culture.

That is a very ancient scenario. It was tried in the forests of Lebanon when Solomon sent eighty thousand loggers into the mountains to fell trees for his sumptuous temple and palace. It was tried on Crete and all around the Mediterranean basin. It was tried on the Scottish Highlands. It is being tried today in Madagascar, Haiti, the Philippines, the Himalayas, Brazil, Indonesia, and Southeast Asia. So far, it hasn't worked once. A few have led high and mighty lives at public expense, but soils have been generally eroded, streams warmed and silted up, watersheds become deserts, and, on a global scale, countless local landscapes laid waste and their indigenous populations (including people) displaced or starved.

In truth, a forest viewed as a **Working Landscape** ends up not being a landscape worthy of human approval at all because it doesn't work as only a forest can work—by regulating itself in response to cyclical variations in local conditions. Humans simply cannot know enough to match the wisdom of a forest. Good 'management' comes down to doing what nature would do under similar circumstances. Where do we go when we want to see a forest in action? We go to a wilderness area where the heavy hand of man has had little effect. Now *there* is a **Working Landscape**, the only one worthy of the name—precisely because it is self-employed and still in charge of itself.

How long have 'our' forests been regulating themselves? In the Northeast, less than ten thousand years, since the last ice sheet receded. And in their current state, much less than that, perhaps two thousands years. But considering we have been intervening in their affairs for a mere two hundred and fifty years, having built up a pretty sorry record of spoilage up to now, we seem to be cutting our apprenticeship drastically short. We are still at the floor-sweeping stage—and yet we want to run the shop! And of course trees were around much before the glacier overran the region—since the Carboniferous period when conifers got their start. We have been managing local evergreen forests badly for two hundred and fifty years where they have been managing themselves with notable success for more than a million times as long. Our metaphors can't hold a candle to nature itself when it comes to developing a workable vision for the future.

And yet we can't do away with metaphors themselves because without them we have no vision at all. To be human means to be condemned to human perspectives. There is no getting around that, just as to be a fox means to see with the eyes of a fox. The best we can do is strive for the most enduring and all-encompassing vision we can achieve. One thing is certain: **Working Landscape** falls far short of that.

What it leaves out is any acknowledgment that forests run efficiently and effectively on their own, without human help. What we must do is enter them in a way that does not curtail their independent success. If we 'harvest' them as a crop, we must let them restore themselves faster than we take them. If we 'enjoy' them as a

'scenic resource,' we must be sure not to enjoy them to death through overuse.

If we insist on viewing our northern forest ecosystem as a **Working Landscape**, its future hinges on the question, "Who is to write the job description governing how it is to work?" Is any human qualified to tell a forest what to do? We all have our preferences of course, but who among us truly has the wisdom to take control of a thriving ecosystem without degrading or destroying it? Here again, our metaphors get in the way. Our corporate goals are likely to take precedence over the well-being of the forest.

For instance, when spruce budworm infestation became a serious problem, we decided to clearcut entire stands to save our short-term profits at the expense of the long-term health of the forest. Normally the damaged trees would have fallen and decayed in place, building soil, preventing erosion, absorbing rainwater, providing habitat—and eventually reseeding themselves. But by bringing in heavy equipment and 'harvesting' the whole stand, the soil becomes compacted, vulnerable to erosion, depleted through removal of vital nutrients, creating a landscape as barren as the moon. This, we would claim, is a **Working Landscape**. But who turned a profit from such work? In the short run, a few men put money in the bank. But what did the forest itself gain in the long run? Thinned and depleted soils; warmed and silted streams; increased competition from a host of single-age seedlings battling against each other for water and light; greater vulnerability to spruce budworm attack—in short, almost total dependence on management by humans if it is to survive in even a crippled form.

At that point the forest ceases to exist and becomes just another agricultural crop. Having a few large blocks preserved here and there for recreational purposes will not redeem it. That is the exception, window dressing to pacify the sporting public and the environmental lobby. The northern forest as a whole will be gone. The metaphorical vision of a **Working Landscape** will bring that about within the lifetime of a single management team.

Over the long haul, the only way for humans to interact with our northern forest lands is on the forest's terms, not ours. If we school ourselves in the forests themselves rather than on Wall Street and in the Boardroom, taking the time to learn how forests truly grow and manage themselves as a rich variety of species cooperating with soil, air, rain and snow, slopes, local climates, wildlife, and insects to produce a self-sustaining and thriving ecosystem—if we can do all that, giving the lead to the forests themselves, then we might have a chance of living with them on

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Montana Weighs In

Working Ecosystems,
Not Working Forests

by George Wuerthner

As large timber corporations have increasingly chosen to sell their holdings to the highest bidder, residents of northern New England and New York have scrambled to protect public access to the land, and prevent inappropriate development of key parcels on lakes, rivers and other lands with high amenity values. A variety of conservation groups, including the Nature Conservancy, as well as state governments have in some cases purchased some of these lands, or obtained conservation easements on timber holdings.

Fee acquisition of these lands and protection of wetlands, river corridors, lake frontage, and other lands with biological or recreational values is certainly a commendable goal. Yet these same organizations are often misleading the public when they suggest maintaining the 'working forest' is desirable for either human or natural communities. Such hoopla is nothing more than timber industry propaganda.

The 'working forest' is an industry euphemism for industrial forestry. Industrial forestry has never been good for human communities, nor natural communities. Numerous studies have shown that timber companies are cutting their lands at non-sustainable levels, are not re-investing in their mills, and are replacing workers with computers and machinery. Not surprisingly, despite ever higher timber harvest, the number of people employed in the industry has declined dramatically throughout the region. All of these changes do not bode well for human communities dependent upon the timber industry. The short-fall of timber supply looming on the horizon guarantees there will be even more economic hardship and social disruption in timber dependent communities in the near future.

Even more importantly, we should never lose sight of the fact that industrial forestry is not an ecologically benign activity. And small protected landscapes advocated by politicians and organizations like the Nature Conservancy, will never protect landscape scale evolutionary

processes and habitat for many native species. Certainly some highly adaptive species like skunks, coyotes and whitetail deer may benefit from logging activities, but none of these species are rare or particularly sensitive to human intrusion.

Our concern should focus on species which require intact forest ecosystems that are disrupted by large scale forestry activity. A working forest isn't the same as a working ecosystem. For example, forest fragmentation resulting from timber cutting has hurt species dependent on closed canopy old growth forests like pine marten, and forest interior nesting songbirds. Reduction in snags and fallen logs characteristic of the 'sanitized' working forests reduces nest sites for cavity nesting birds and mammals, and diminishes fish habitat (fallen logs are important fish habitat in small to mid-size streams). Roads associated with logging increase sedimentation in streams degrading aquatic ecosystems, as well as providing increased access that places greater harvest pressure upon wildlife and often facilitates poaching. There are undoubtedly many other negative effects from industrial forestry that we haven't even begun to appreciate.

The worst aspect of the Industrial Forestry paradigm is that we are subsidizing the degradation of our communities and the landscape. Low property taxes, lax environmental accounting of the real impacts of Industrial Forestry means we are paying for the biological and economic impoverishment of the northern forests. If we redirected public funds toward acquisition of these lands, and protected them, we would reap even greater long term benefits.

Rather than parroting timber industry propaganda about the presumed benefits of the 'working forest,' we need to emphasize the need to protect large wildland cores and significantly reduce timber harvest to sustainable levels on non-wildlands. We need to advocate for working ecosystems, not working forests.

George Wuerthner of Livingston, Montana, may be contacted at wuerthner@ycsi.net

The Northern Logger Weighs In

Forgetfulness in Economic Good Times Drives Preservation, says the Northeast's pre-eminent logging magazine

No bathroom in the North Woods is complete without several back issues of **The Northern Logger** (and/or **Wild Earth**, depending on where you stand in the Man-Nature duality). However, **Forum** readers may have somehow missed the December **Northern Logger** and its interesting editorial thesis that affluence drives the efforts of "preservationists and other extreme environmental types" who are able to convince the public in swell times that Wilderness and even regulation are affordable luxuries.

Equally compelling is editor Eric Johnson's commentary on timber supply, which he says ought to be on the top of every logger's 'worry list.' "On the horizon," says Johnson, "loom the twin threats of overcutting in some areas due to a combination of greed and sustained strong markets, and undercutting in other areas due to a variety of rules, regulations, restrictions and downright nonsense." He urges his readers to devote some time to protecting their long term interests. ❀

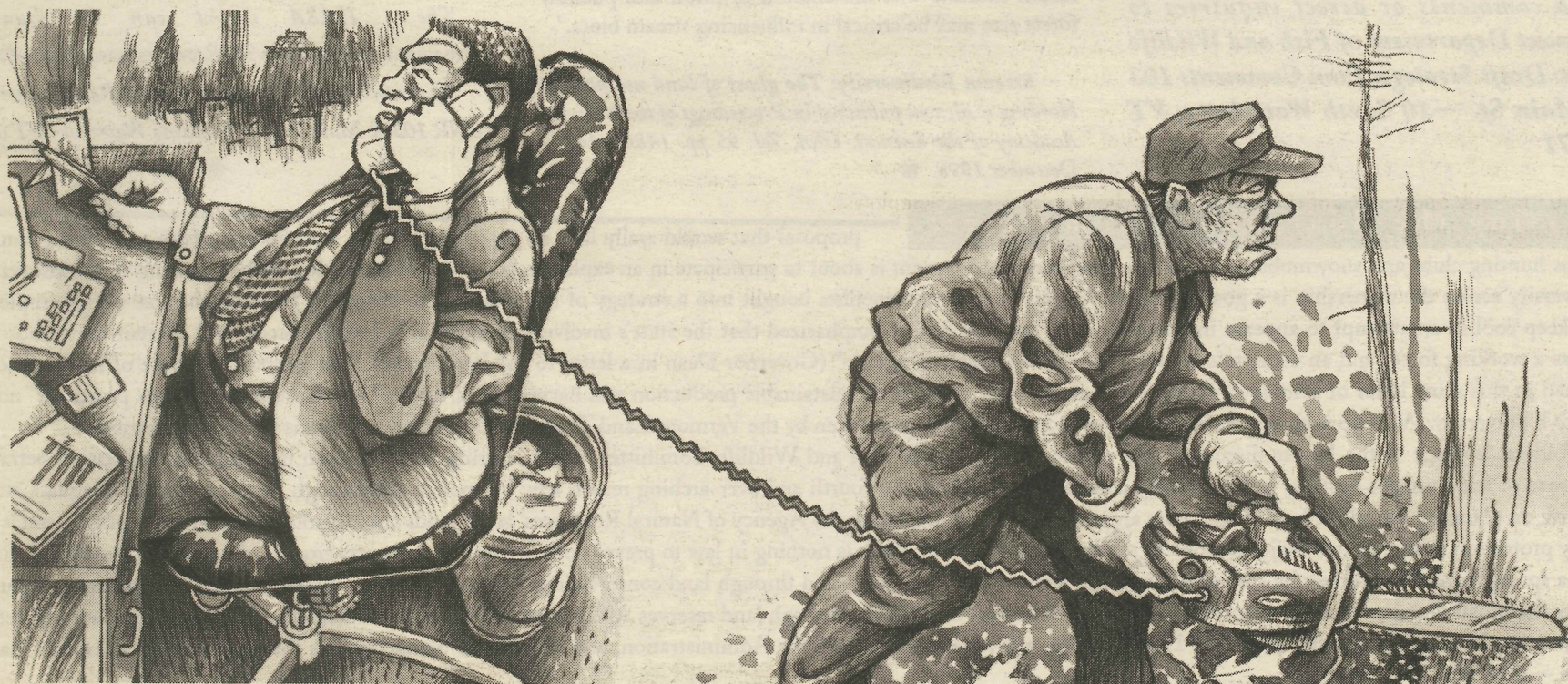
Perrin cont. from Page 10

equable and bountiful terms. What metaphor might we adopt to prepare the way for such a possibility?

Since forests are complex living beings in themselves, we would do well to shape our vision with metaphors which do justice to that complexity and its capacity for self-regeneration. Perhaps such metaphors exist: the **Living Forest**, the **Living Landscape**, or the **Green Kingdom** might remind us of that fact. But more likely, no single metaphor by itself can carry the burden of a vision appropriate both for forests and for humans. We would do well to have a bundle of metaphors to draw from which would keep us in mind of the fact that a forest is many things, depending on how we look at it. A real estate developer or land speculator will see a tract of forested land one way, a ski slope operator or snowmobile club another, a logger a third, a wildlife biologist a fourth, a watershed manager a fifth, and so on and on. It would be an error to let ourselves be trapped into thinking a single metaphor can express what a forest truly is. Ecosystems are far too complex to be encompassed by a single expression.

Jargon won't do the job when what we need is wisdom, judgment, foresight, humility, patience, caring, and respect. ❀

Stephen Perrin lives and writes in Bar Harbor.



Vermont Department of Fish & Wildlife Strategic Plan Gathering Comment

Constitutional guarantees safeguard Vermonters' liberty "in seasonable times, to hunt and fowl on the lands they hold, and on other lands not enclosed" and likewise to fish. And in the same way that statute has established the public interest in forests, so too has it declared protection, management and conservation of wildlife to be in the interest of public welfare . . .

In that context, Vermont's Department of Fish and Wildlife is gathering comment on its draft strategic plan, which will guide its activities over the foreseeable future. Given that the Department is about to become the lead Department in the management of the 23,000 acres that Vermont (will presumably) acquire in the Nulhegan Basin—where it already had devised a deer management plan with Champion International—this plan is worthy of your attention.

The good news is the Aldo Leopold quotes, the stated goals of conserving, enhancing and restoring ecological integrity, reducing habitat fragmentation, and (maybe) increasing public awareness of "sustainable utilization of natural resources." The devilry is in the subtleties.

Thus far, in fact, the Department has drawn flack for its Moose Management Plan, which informed the decision of the Fish and Wildlife Board to expand the range of the moose hunt. An op-ed piece by Carl Russell of Bethel, Vt in the February 11 *Barre Times Argus* suggested that the Department is too susceptible to a narrowly constructed view of hunting sentiments, rather than biological carrying capacities and population health.

Public input may help focus Department planning and demonstrate public support for the principles of conservation biology: maintenance and restoration of large core reserves, the importance of old growth forest in the landscape, habitat connectivity, restoration of wild trout populations and reducing reliance on hatcheries, cooperating with the US Fish & Wildlife Service in assessing wolf, lynx, catamount and pine marten restoration opportunities.

Send comments or direct inquiries to Vermont Department of Fish and Wildlife Attn: Draft Strategic Plan Comments 103 S. Main St. —10 South Waterbury, VT 05671

It Takes a Watershed to Protect a Waterway

Preserving the biological diversity of streams—invertebrates and fish—may involve more than a stream bank approach and instead require protection of entire watersheds, researchers in the southern Appalachians have found. Research published in *Proceedings of the National Academy of the Sciences* investigated the connection between past land use in once cleared and now reforested watersheds. It found reduced diversity in recovered, former farmlands and also found that land use throughout a watershed impacted diversity in streams.

The report concludes, "Current land-management practices often operate on the assumption that economic activity within a catchment can proceed as long as riparian zones are protected. Riparian zones have been used effectively to mitigate the adverse effects of many



Big Wheeler Pond, Brunswick, Vermont. Photo courtesy of Kathleen Fitzgerald.

land-use practices, but our understanding of the linkages among ecological processes that shape biodiversity, biotic communities, and watershed conditions is far from complete.

"In addition to understanding the value of intact riparian zones, our results support the view that conservation of natural ecosystems may require preservation of the entire watershed—not just fragments of it as many current policies assume. In terrestrial systems, the influence of forest-fragment size on biodiversity has been investigated intensively. In contrast, this issue has been largely ignored in stream systems; however, our results indicate that the amount of forest and possibly forest size may be critical in influencing stream biota."

Stream Biodiversity: The ghost of land use past by Harding et al. was published in *Proceedings of the National Academy of the Sciences, USA, Vol. 95 pp. 14843-14847 December 1998.* ❀

The Annals of Mensuration Here are the Numbers, What are the Facts?

The ongoing debate about timber inventory and the relevance of the numbers generated by US Forest Service Decennial Surveys and other state surveys to discussions of biodiversity and forest practices has been joined by the Vermont Agency of Natural Resources and an international research firm.

ANR has released the data from Vermont's latest Decennial Survey, and placed it in the context of reforestation and ecological recovery. The numbers show the ongoing trend toward greater volume, more trees, and more forested acreage. A letter in the ANR's yearly report on the state of Vermont's environment from secretary John Kassel states that the numbers "[gives] us information to put the discussion about the health of our forests in context."

Meanwhile, an article in the February 9 *New Scientist* reports that the Austrian research firm International Institute of Applied Systems Analysis has called into question forest data collected by both the United States and Canada. While readers of *The Forum* will recall articles by Bill Butler questioning Decennial Survey methods in Maine, these criticisms address the implicit assumption that all forest growth is harvestable without impacts on biodiversity, soil and resource quality. Researcher Sten Nilsson believes according to the *New Scientist* that Canada may be over-estimating forest growth by as much as 40%.

Ken Davis in the state of Vermont, a leader of POST, the group opposing Vermont's recent cutting legislation, obtained Decennial survey numbers in advance of their release to the public through a Freedom of Information request. He has expressed his belief that these numbers demonstrate that public outcry over clearcutting has flown in the face of facts: there is no crisis. At least one public employee close to the numbers has however stated his belief that the numbers can obscure what really happens in the field and that "the debate about forest practices ought to occur in any case."

The IIASA report can be found at: www.iiasa.ac.at/Research/FOR/papers/news/index.htm.

To contact the VT Agency of Natural Resources write ANR 103 S. Main St. Ctr Building Waterbury VT 05671.



Missing the Boat cont. from Page 2

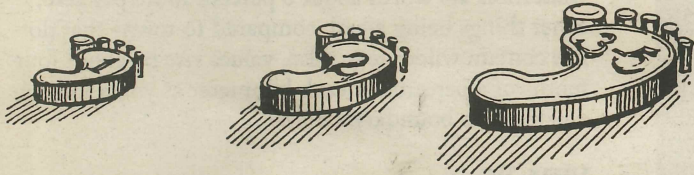
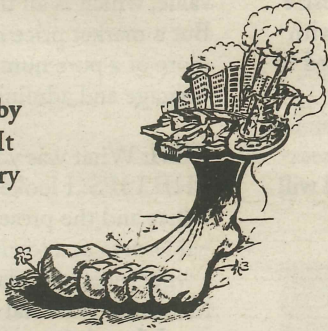
proposal that would really lard up the appropriation with special provisions for constituencies such as hunting clubs and snowmobilers. How did it happen that Vermont is about to participate in an expenditure on land conservation without stating that conservation of biodiversity across the ownership is a goal? First off, Vermont's environmentalists bought into a strategy of not melting the butter off their tongues on the Champion land deal: keep cool in an attempt to appease industry. Second, political leaders emphasized that the state's involvement was for "1.) public access and 2.) that the woods will be used as a working forest and an economic resource for the Northeast Kingdom" (Governor Dean in a letter to the Legislature). The intended purpose of the easements, as outlined in this same letter of assurance, furthermore makes only mention of "sustainable production and harvesting of timber" and "sustainable timber practices:" no reference to biodiversity. With no such reference, the sound ecological work undertaken by the Vermont Land Trust and Conservation Fund is left to fend for itself.

Political leverage in the House discussion was granted to the House Fish and Wildlife Committee, which, during testimony on the herbicide legislation betrayed its ignorance of and outright hostility to biodiversity considerations. There is a fourth and over-arching reason why Vermont slept through this one: it lacks adequate statutory directive on planning for public land. Sure, there are numerous plans, including the Agency of Natural Resources' latest lands conservation plan, which explicitly states biodiversity protection as one of two major reasons to protect land. However, there is nothing in law to prevent one senator or one party from larding up a bill; nothing that provides a springboard for planning by stating what public interests are to be protected through land conservation. Vermont needs to enact a public forest planning statute that reflects the broad dialogue that has occurred on the need to protect biodiversity through land reserves AND improved forest practices. Wisconsin has such a statute; let's look to it (see last issue of the *Forum*, page 26). However, this will require more from the Administration, and House and Senate leaders than was displayed in the Champion debate.—AW ❀

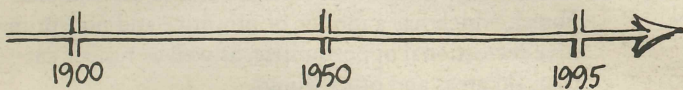
Ecological Footprint: Modeling Human Impact on the Earth

The following picture essay presents the Ecological Footprint, a graphic representation of land area appropriated by human consumption. This model of our impact on the earth is visually compelling and lends tangibility to the concept of sustainability. The Ecological Footprint is the work of Mathis Wackernagel and William Rees; the illustrations here are by Phil Testemale. You can purchase a copy of *Our Ecological Footprint* for \$14.95 from your local independent bookstore; it is part of The New Catalyst bioregional series published by New Society Publishers whom we thank for their permission to run these excerpts. (P.S. Bill Butler's analysis of wood consumption by biomass plants on page 28 is an example of homegrown ecological footprinting.)

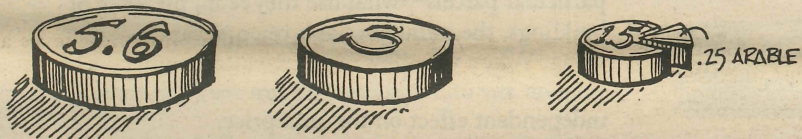
The Ecological Footprint is a measure of the 'load' imposed by a given population on nature. It represents the land area necessary to sustain current levels of resource consumption and waste discharge by that population.



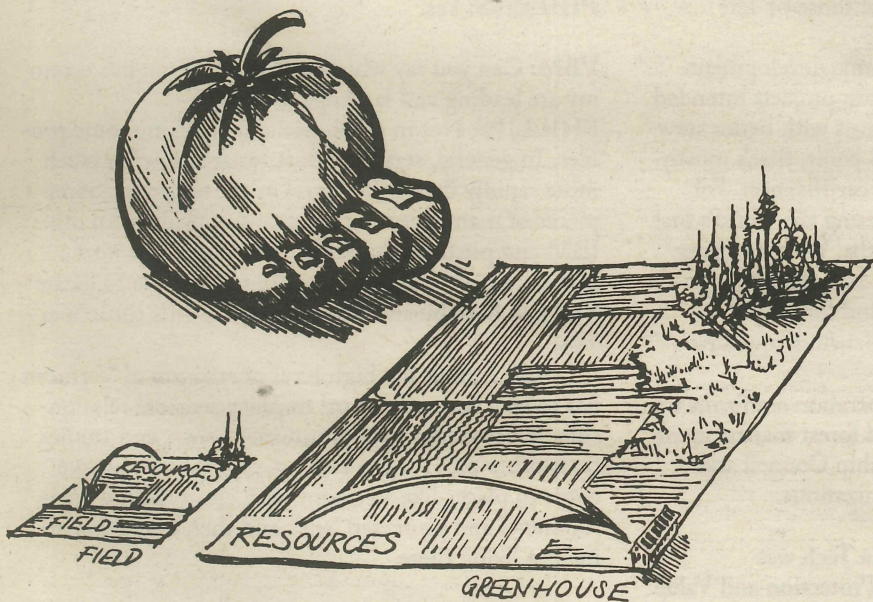
LAND APPROPRIATION PER CAPITA (RICH COUNTRIES)
(IN HECTARES)



ECO-PRODUCTIVE LAND AREA AVAILABLE PER CAPITA (WORLD)
(IN HECTARES)

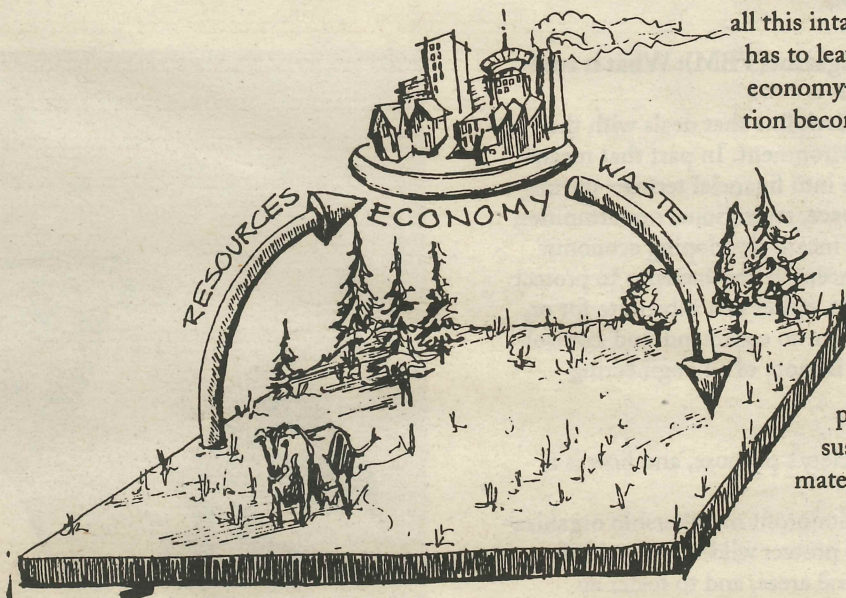


Our Ecological Footprints Keep Growing While Our per capita 'Earthshares' Continue to Shrink. Since the beginning of this century, the available ecologically productive land has decreased from over five hectares to less than 1.5 hectares per person in 1995. [A hectare is equal to 2.2 acres.] At the same time, the average North American's Footprint has grown to over 4 hectares. These opposing trends are in fundamental conflict: the ecological demands of average citizens in rich countries exceed per capita supply by a factor of three. This means that the Earth could not support even today's population of 5.8 billion sustainably at North American material standards.

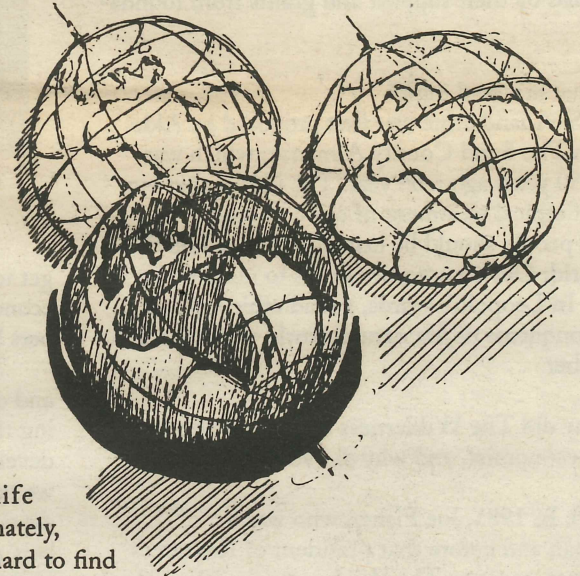


The ecological efficiency of various technologies can be assessed by Ecological Footprinting. This example compares two ways of growing tomatoes in British Columbia: open-field production and heated hydroponic greenhouses. Even though a greenhouse's physical Footprint per unit production is much smaller than that for open-field production, when we consider the Ecological Footprints of energy, fertilizer and other inputs, the greenhouse's total land requirement per tomato is actually 10 to 20 times larger (drawn to scale).

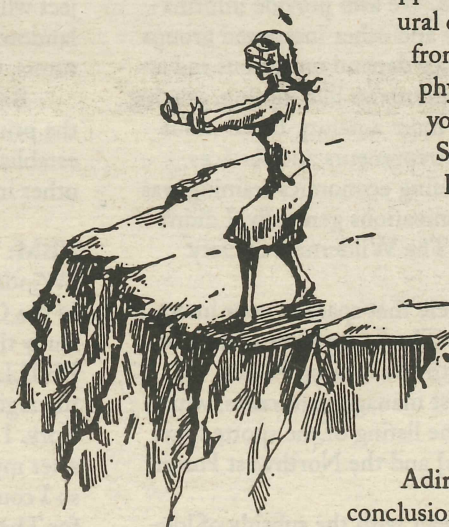
What is an Ecological Footprint? Think of an economy as having an 'industrial metabolism.' In this respect it is similar to a cow in its pasture. The economy needs to 'eat' resources, and eventually, all this intake becomes waste and has to leave the organism—the economy—again. So the question becomes: how big a pasture is necessary to support that economy—to produce all its feed and absorb all its waste? Alternatively, how much land would be necessary to support a defined economy sustainably at its current material standard of living?



Wanted: Two (Phantom) Planets. If everybody lived like today's North Americans, it would take at least two additional planet Earths to produce the resources, absorb the wastes, and otherwise maintain life support. Unfortunately, good planets are hard to find ...



Measuring the World in Monetary Units Make us Blind to the Ecological Constraints on Sustainability. An alternative approach is to assess our natural capital requirements from an ecological and biophysical perspective. [Do you remember David Stockman, President Reagan's director of the Office Management and Budgets, who assessed the cost of acid rain control against the number of fish potentially saved in acidified ponds of the Adirondacks? His rational conclusion was that the controls weren't worth the price per fish ...]



Valuing Ecology, Creating Opportunity

Wilderness Society Economist Looks at Northern Forest

[The following interview first appeared in a fuller form in the October 1998 Vermont Business Magazine and is re-printed here by permission of the interviewer, Richard Andrews of Chester, Vermont.]

Spencer Phillips of Craftsbury, Vermont is the Wilderness Society's economist covering the Northern Forest, well-known to our readers as the 26-million-acre region stretching across the Adirondacks of New York, the Green Mountains and Northeast Kingdom of Vermont, the White Mountains of New Hampshire and the north country of Maine.

Vermont Business Magazine(VBM): What is environmental economics?

PHILLIPS: It's a subdiscipline that deals with the value of the natural environment. In part that means trying to put that value into financial terms—putting a dollar value on open space, recreational opportunities, wildlife habitat. It also means developing economic and market-oriented incentive mechanisms to protect the natural environment, either as a substitute for or, more often, a complement to command-and-control-type regulation, which is more of an engineering approach.

VBM: What is the Society's purpose, and how is it funded?

PHILLIPS: We are a nonprofit membership organization. Our purpose is to protect wilderness, wildlife habitat, parks and natural areas, and to foster an American land ethic. We were founded in 1935, and have roughly 200,000 members across the country. We're funded by their support and grants from foundations.

VBM: What is a land ethic?

PHILLIPS: A land ethic was first proposed by Aldo Leopold in *The Sand County Almanac*, which was published 50 years ago next year. The idea is that our standard of ethical treatment of our community of things and people should be expanded to include the natural world. Our community needs to include the land itself. In Leopold's words, a land ethic replaces man as a conqueror of the natural world with man as a plain member.

VBM: Why did The Wilderness Society decide to employ an economist, and why did you want to work there?

PHILLIPS: In 1981, Joe Fisher, who was a Congressman and before that president of Resources for the Future, came to The Wilderness Society and established the first-ever economic analysis unit for an environmental organization, to provide economic arguments for better management of the national lands, particularly National Forests.

Since then, for example, The Wilderness Society has been working to quantify the money the Forest Services loses on timber sales in most National Forests, and establishing the economic value of recreational, scenic and other resources. We also provide information to rural communities and other interested groups on the degree to which they depend on various industries, whether extractive industries like mining, grazing and logging, or on other, more amenity-based industries, such as footloose entrepreneurs and services.

My intention in pursuing economics training was to help conservation organizations generally. I didn't have in mind specifically The Wilderness Society.

VBM: What was the article that sparked your interest?

PHILLIPS: It was called *The Long Slow Dance of the Trees*, and it dealt with the coming Pacific Northwest National Forest management crisis, which of course culminated in the listing of the spotted owl [as an endangered species] and the Northwest Forest Plan some years later.

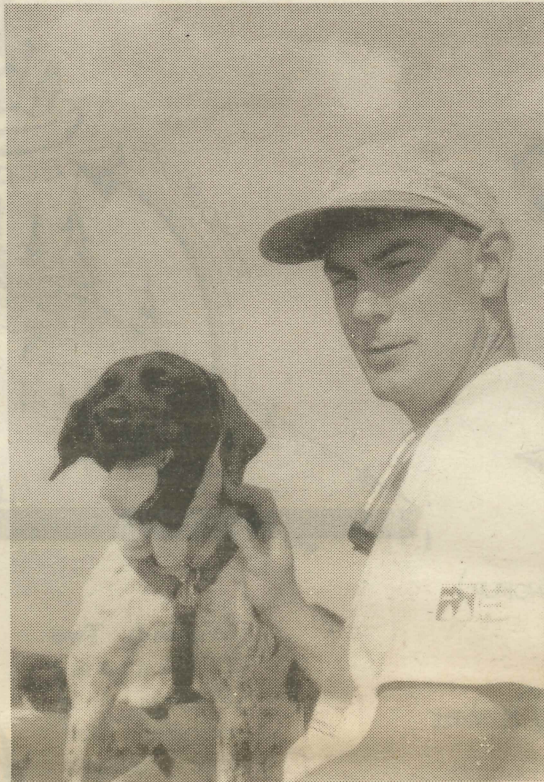
But the article also dealt with the subsidy of logging of the National Forest. To me, with bachelor's-level training in economics, it didn't make a whole lot

of sense to subsidize an industry already in decline. Those federal revenues could be used more appropriately and more effectively elsewhere, both on economic development and on environmental protection.

VBM: What is your job now?

PHILLIPS: It's a mix of original research and straight econometric analysis and policy analysis. I synthesize the results from others' research and combine it with mine to suggest or evaluate policy proposals related to conservation.

There is also a very healthy dose of rural economic development. I conduct community economic assessment workshops around the region—and this fall will



Spencer Phillips with friend

get to the South—where, rather than producing an economic profile of an area, we teach community members how to do it themselves.

The statistics the government collects are so vast and confusing that most people have a hard time turning them into something useful for local economic development without some guidance and training. So we teach people how to turn that raw data into digestible information. When they're done, the numbers and conclusions are theirs, not those of The Wilderness Society.

As another part of that economic development work, we have several demonstration projects intended to more closely link economic returns with better stewardship of forest resources. At this point, that's mostly through the tool of forest product certification. For instance, one project will be marketing the world's first certified paper in a couple of months. We're working on that with a mill in Lyons Falls, NY. Another project will launch a revolving loan fund for small landowners, loggers, and chain-of-custody manufacturers, to become certified.

Being certified means your operation conforms to the principles and criteria for good forest management established by the Forest Stewardship Council and other independent nonprofit organizations.

VBM: Your PhD thesis at Virginia Tech was "Windfalls for Wilderness: Land Protection and Value in the Green Mountains." Why did you decide to study the Green Mountains?

PHILLIPS: A couple of reasons. One is that this is the region where The Wilderness Society hired me to work. I left Virginia Tech as a full-time student just after my oral exams. I didn't have a thesis topic then, so I could choose something that would be useful also for The Wilderness Society.

Also, by happy coincidence, Vermont has the best data set one could ever want for doing a land price

analysis. Because of the land transfer tax, those records have been digitized since 1987. The state has three hundred and some thousand market transactions recorded.

It's really great because that database is actually market prices—the prices willing buyers paid willing sellers. Most economists have been stuck with assessed value, which is all that counties or states have recorded. But a market price is much more interesting, and it's more of a pure number. Assessed value has all kinds of baggage and administrative restrictions.

VBM: What was your study?

PHILLIPS: I looked at the relationship between land values and the presence of [federally designated] wilderness in a town, or the distance of the town from a wilderness boundary, in towns near the Green Mountain National Forest.

I found that parcels in a town that also contains wilderness are worth about 8 percent more per acre, other things being equal, compared to towns that do not contain wilderness. Also, values rise by about four tenths of a percent for each kilometer as you approach a wilderness boundary.

VBM: Why?

PHILLIPS: It's the amenity value of protected landscapes. Wilderness is a protected watershed and a protected viewshed. It offers special recreational opportunities, different from those in the rest of the National Forest, which has a mosaic of primitive and non-primitive recreational opportunities, as well as timber cutting, ski areas and other things.

In my model I accounted for the effects of ski areas, of proximity to or being in a town crossed by a major state or US highway, population density, population growth rate, inflation, and other factors specific to particular parcels—what use they're in, presence of buildings, the number of apartments, that sort of thing. When you filter out those effects and concentrate on any one of them, you can see whether it has an independent effect on the land price.

VBM: Are your findings supported or disputed by other economists?

PHILLIPS: We won't know until the study is out in the peer-reviewed literature and the final report is published. The first, and possibly the best, filter will be my PhD advisers at Virginia Tech this fall.

VBM: So it's somewhat preliminary?

PHILLIPS: Definitely.

VBM: Is peer review the safeguard of your objectivity?

PHILLIPS: Yes.

VBM: Can you say which sectors of Vermont's economy are leading and lagging, and why?

PHILLIPS: Not in detail without checking some profiles. In general, service industries are growing much more rapidly than other parts of the economy. Some pieces of manufacturing are growing faster than others. IBM and proximity to large metropolitan centers influence that, making it possible for people to locate here and have businesses oriented towards those markets.

And I think the high level of amenity in Vermont has to be a factor. It's hard to prove a causal relationship, but it makes a lot of intuitive sense, and studies from other parts of the country suggest that people come to places like Vermont with clean natural environments and protected land, and then find a way to make a living there.

VBM: Is that why you came here?

PHILLIPS: Yes. Vermont certainly has the reputation, a set of statutes, and practice, that indicate the state is committed to protecting the rural landscape and quality of life, more so than the other Northern Forest states where I work.

I moved here last September, but prior to that I spent five and a half years traveling up here pretty frequently. And many parts of Vermont are much like the landscape that I grew up in, in southeastern

Pennsylvania, particularly in Addison County.

It looked and felt and smelled a lot like home. In many ways it was the most comfortable place to be. Certainly the lack of billboards is a quality of life of factor.

VBM: People often think of hamburger flipping when considering service industries. How do pay levels in services compare with commodity production or manufacturing?

PHILLIPS: The truth is there's a wide range in both manufacturing and services. Actually, hamburger flipping is a retail job, not a service job at all. And of course, there is a range within retail as well. But the service sector includes software designers, doctors, lawyers, engineers, nurses, and recreation and amusement services, including guides and ski area owners and employees. Even within those smaller industry divisions, there's a wide range of wages.

The service industry has some of the highest wages in the economy, and some of the lowest. My job is a service industry job—not necessarily high-wage, but not dead-end, either.

VBM: So you can't generalize.

PHILLIPS: No. Also, people tend to think that the loss of a job in one industry necessarily means the only opportunity is in some vastly different industry, or type of job, or pay scale. However, this hasn't been the case in Vermont.

Vermont has actually been adding jobs in forest products manufacturing.

Even in other parts of the Northern Forest region, where large numbers of jobs have been going away, particularly in the paper industry, the alternative opportunity for former mill workers or loggers is not necessarily only services. It may be in another type of manufacturing, where their skills are a better fit, at minimal change in pay—sometimes even an increase.

I think it's a legitimate question, too: who's getting the new, high paying jobs that do appear? Is it somebody coming in, and taking the job? Is it somebody coming in and bringing the job with them, as in the case of employment in Vermont? Or is it somebody from the area who has been able to get

enough education and training to compete?

Recently Vermont has been having a hard time finding software engineers and systems analysts that a lot of the fastest growing companies need. It's an important question whether this state is preparing its sons and daughters to compete for those jobs.

When you add New York, Vermont, New Hampshire and Maine together, the overall trend has been a loss of forest products manufacturing jobs. But within that loss, there's been some gains in the solid-wood side.

VBM: Can public policy help create those high-value-added, solid-wood manufacturing jobs?
PHILLIPS: Sure. Those higher-value-added jobs generally start with a forest in better shape, which is producing sawlogs rather than pulpwood, although there are some exceptions, where a firm will take extremely low-value wood and turn it into extremely high value products.

Beacon & Parsons over at Shelburne Farms is an example. They are experimenting with commercially overlooked species and low-quality stems. There many places where the forest has been high-graded over the course of centuries, taking the best and leaving the worst, or has been managed for pulpwood more recently. There's a lot of opportunity for taking those low-value stems, doing restoration forestry, and finding ways to make the most out of the wood that's available.

The reason higher value-added manufacturing is better is that most of that added value goes into wages, not into petrochemicals to power big machines or for herbicides. It pays people to design, manufacture, finish and market products in new and different ways, and stays in the area.

Whereas, in the case of paper, a lot of the paper companies are transnational corporations, so the money goes elsewhere, to the folks who designed the huge paper machines, the huge harvesting machines, or to whoever is controlling the energy resources used in those manufacturing processes.

VBM: You worked on a series of publications titled 'Northern Forest Strategies for Sustainability.' What is sustainability?

PHILLIPS: Sustainability is the capacity of a region to provide for its own welfare and the welfare of generations into the indefinite future. In the case of a forested landscape, where much of the economy

depends on forest products, that means a sustainable forest.

There are any number of definitions of that, but generally speaking, it means the ecological functions of the forest are intact and capable of producing the same level of wood volume, as well as wildlife habitat and air and water quality benefits, as we enjoy now—indefinitely.

VBM: Does that concept also apply to tourism?

PHILLIPS: Yes. It is a real mistake to assume that



VBM: Why has Vermont been adding forest products manufacturing jobs, while other Northern Forest states have been losing them?

PHILLIPS: It's probably because the forest products manufacturing industry in Vermont has remained a solid-wood products industry, and there is more value to be added in producing lumber, dimension stock, furniture parts, furniture or timber-framed houses than commodity paper. Losses in the paper industry in other states have generally swamped any minor gains in the lumber and wood products part of the industry.

continued on page 19

Small is Beautiful,

How our taxes contribute to social and environmental breakdown—Excerpts from a report by the International Society for Ecology & Culture.

by Steven Gorelick, Principal Author,
Introduction by Helena Norberg-Hodge
© ISEC

Introduction—Tilting the Playing Field

For generations now our tax money has been used to create an economic framework that favours the big over the small. The result is that all of our choices—from education, energy use, transport and communications—are being shaped and distorted to suit an ever more centralised, ever more globalised economy. Combined, these costly subsidies and investments make for an extremely inefficient system. Any appearance of efficiency is maintained only because our taxes cover many of the costs at the expense of small, local producers who, left to their own resources, are thereby made to seem comparatively inefficient.

Consider the case of factory farming. Where large numbers of animals are made to live in close confinement, conditions are ripe for the outbreak of virulent disease. In this situation, more controls and regulations are required than is the case for smaller producers. The latter, however, are forced to comply with these same stringent—and, for them, unnecessary—safeguards at a cost that few can afford to bear.

At the heart of the modern industrial economy is the principle of 'comparative advantage' according to which it is always in a nation's interest to specialise production for export rather than promote diversified production for local and national need. As a consequence, economic policies encouraging trade have supported trading institutions which have merged to become the giant transnational corporations that we know today. By now, each of the major commodities on the world market—e.g.: coffee, cocoa, cotton—is controlled by a handful of corporations.

This support for international trade has given global players an unfair advantage over local producers and businesses. The result is a tilted playing field favouring monopolies which are growing larger and more powerful every day. In recent years, their power has been boosted dramatically by a series of 'free-trade treaties,' such as NAFTA, Maastricht, GATT, and the Multilateral Agreement on Investment (or MAI). Known as the 'Multinationals' Charter,' the MAI will elevate the rights of companies above those of nations and their citizens. 'This will give companies the power to sue governments if domestic legislation interferes with trade. These agreements are not about trade between countries but about the rights of transnational corporations to move unimpeded into every domestic market.

Basic Assumptions

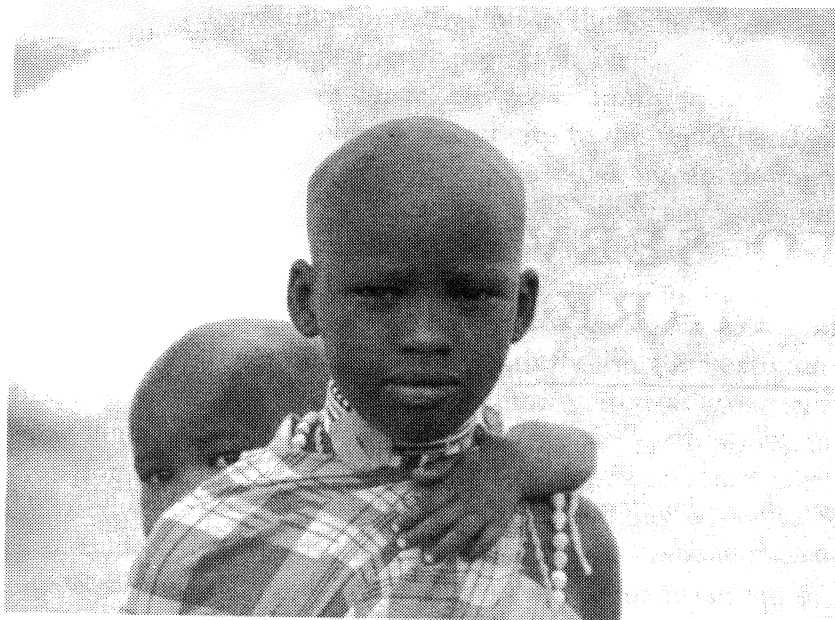
It is the thesis of this publication that the growth of ever larger corporations operating in an increasingly globalised economic arena is not the product of natural or evolutionary processes, but is very much the result of human decisions—particularly the policy choices made in our names by governments. Such decisions can be changed, and so can the course of our collective social and economic life.

What human-made 'framing conditions' make the small and local seem evolutionary dead-ends, promote



Government-funded infrastructure projects cater to the demands of big business.

the growth of ever larger corporations, and make a globalised economy appear 'inevitable'? Since the question is about large versus small, it's not surprising that



Modern education ignores cultural and ecological context.

one side of the 'frame' is built around power—both the power of governing institutions to make decisions on behalf of society as a whole, and the power of a wealthy business elite that strives to maintain and expand its economic position. . . .

Another part of the frame is aligned along an ide-

ological or worldview axis, and is made up of society's dominant economic and technological beliefs and attitudes. In the industrialised world, this ideology is based upon such assumptions as these:

- Markets are the best and most rational means of governing social and economic affairs;

- Since the proper functioning of markets depends on individualism and competitiveness, these traits should be honoured and cultivated;

- The well-being of both individuals and societies is best measured in terms of their levels of consumption, and therefore healthy societies require constant economic growth;

- Advances in technology are either beneficial or at worst 'neutral,' and in any event the advance of technology is beyond social control;

- Whatever the costs, the technological and economic changes associated with 'progress' are an improvement on the past, which was a time of unrelieved drudgery and deprivation.

. . . understanding the systemic roots of today's crises can be helpful even to the most local of grassroots efforts. The drive towards a global economy has given rise to so many symptoms of breakdown and inequity that focusing on one symptom or another can easily blind one to the common thread that links them all. Recognising that thread can help activists forge otherwise unlikely alliances, making efforts to combat the corporate-industrial system stronger and more effective. From the clearcutting of old-growth forests to the hazards of genetically engineered foods, from sweatshop labour in the South to corporate downsizing in the North, from the erosion of democracy to the loss of indigenous ways of life—all of these (and many more) seemingly separate problems emanate from the same economic and technological system—one that is becoming even more divorced from real human and ecological needs.

When Corporations Rule the Economy

Today there are some 40,000 transnational corporations, most of them based in the industrialised countries; among them, they generate three-quarters of all the world's imports and exports, and have sales of \$5.5 trillion. In his book *When Corporations Rule the World* David Korten cites some sobering statistics:

- the 500 largest corporations in the world now control 25% of the entire world's economic output;

- the largest 300 corporations (not including financial institutions) own roughly 25% of the world's productive assets;

- the 50 largest commercial banks and diversified financial companies control nearly 60% of all global capital.

These numbers underscore Korten's point that "The global trend is clearly toward greater concentration of the control of markets and productive assets in the hands of a few firms . . ." The big are getting bigger, much bigger."

Farewell to Small Business

The growth of these very large businesses has been at least in part at the expense of the very small. Studies in

BIG is Subsidized

the US have shown that five years after the opening of a new Wal-Mart, stores within a 20 mile radius have lost an average of 19% in retail sales. For many local enterprises, survival is impossible in the wake of such losses. The typical result can be gauged from the experiences of a town in Iowa, where the opening of a Wal-Mart was followed in quick succession by the closing of eight smaller businesses—including a hardware store, three clothing stores, a drug store, a shoe store, a department store, and a variety store.

Small Farms vs. Agribusiness

The growth of large enterprises at the expense of smaller ones has been particularly true in agriculture. In the United States, small farms have been steadily disappearing for generations. When they do, their land is usually swallowed up by larger farms, with the result that the average farm size in the US more than tripled between 1935 and 1987. Large farms also need fewer people per acre: between 1950 and 1955 alone, America's agricultural sector shrank by more than a million workers. This trend has been going on so long that today less than 3% of the US workforce is directly engaged in farming; yet even with so few farmers left, small farms have still been disappearing at the rate of more than 30,000 a year.

The loss of small farms goes hand-in-hand with the marginalisation of rural areas in general. In the past ten years, for example, the British agricultural sector has shed some 88,000 jobs. With their livelihoods gone, many rural people have little choice but to migrate to urban centers, leaving behind small towns and villages sapped of cultural and economic vitality. Rural economic health suffers further injury from the invasion of corporate chains, which displace smaller, locally-owned retail shops. While the latter recycle a high proportion of their revenues back into the local economy, corporate chains and franchises merely siphon wealth away and deliver it to corporate headquarters—where it fuels further corporate growth and adds to the portfolios of stockholders, but gives little back to the local economy where it came from. Studies indicate that of the money spent at a typical McDonald's restaurant, nearly 75% leaves the local economy. Other studies show that Wal-Mart, which sites most of its rural stores in rural areas, destroys three jobs for every two it creates.

So What is Small and Local?

Truly small, truly local businesses are becoming increasingly rare, especially in the industrialised world. Examples might include family farmers selling directly to their customers, or craftsmen and artisans using nearby resources to produce wares for surrounding towns. One key feature of such enterprises is that the distance between producer and consumer is fairly short—a good rule of thumb for 'local.' But today a wide range of subsidies and ignored costs mean that goods transported halfway around the world and passed through several corporate middlemen can easily be cheaper than goods produced right next-door, making it hard for truly local producers to survive. Because of hidden subsidies the cost of local garlic in Spain, for example, is twice that of garlic imported from China; similar distortions make local butter in Kenya more expensive than butter imported all the way from Denmark. It is an absurd situation, none the less so because it is justified by economic logic.

Clearly, a fundamental change in direction is needed. The goal would not be to shrink the producer-consumer distance to some arbitrarily defined number of miles, nor would it be to eliminate all trade. Instead, the aim would be to offer support to the small producer instead of the corporate giant, to local economies

rather than the global.

Truly local economies—where the separation between producers and consumers is minimal—inherently promote small scale on many levels. Businesses



Cultural and agricultural diversity are giving way to monoculture, self-reliance to global dependence.

and industries can be smaller, less centralized, and less taxing on the environment, and communities can be less populous but still culturally and economically vibrant. In that sense, the terms 'local' and 'small' are intimately related. Importantly, they define a vision of the future radically different from that being embraced in our name by governments everywhere.

Catering to Growth

The architects of today's industrial economies are well aware of their infrastructural needs: a transport network capable of quickly and reliably delivering raw



Publicly funded road networks enable large enterprises to undercut their smaller competitors.

materials, agricultural commodities and manufactured goods over long distances; large quantities of cheap energy, both to fuel manufacturing processes and to enable household consumption to rise; communications networks to permit central co-ordination of widely dispersed corporate activities; educational institutions to provide a workforce trained for roles in the corporate economy; and research bodies to maintain a rapid rate of technological innovation. There is no doubt that this is the agenda that drives government policy on infrastructure development today.

... government-funded infrastructure development has 'catered to the demands' of large corporate enterprises for many years. To see what the result has been, it's worth considering one corporation, Wal-Mart, the

world's largest retail business—and by some projections, soon to be America's largest corporation. The success of this firm has often been noted, and usually ascribed to the business acumen and personality of the

company's founder, Sam Walton.

Rarely, if ever, does the role of a publicly-funded infrastructure enter into the analysis. If it did, it would become clear that the 'everyday low prices' the corporation uses to drive small shops out of business are made possible by a wide range of indirect subsidies.

Small Scale, Human Scale

If global economies and the corporations that dominate them require an industrial infrastructure, small-scale economies built around more localised markets would have very different needs. There would be far less dependence on long distance transport, reducing the need for motorways, airports and shipping terminals. Since manufacturers would be producing for a smaller market, they would likely be smaller themselves, and use more human labour

and less energy. Communication links to co-ordinate activities across continents would no longer be a high priority. Though schools would still provide information about other cultures, they would primarily be diverse reservoirs of location-specific knowledge. Research would likely aim toward the best use of local resources in a particular environment, rather than focusing on high-tech findings with applications anywhere in the world.

Transportation—13,000 Missing Cyclists

The advantage that a cheap and reliable long-distance transport system gives to large-scale businesses is one reason why they have been able to supplant so many smaller enterprises; it also helps explain how the global economy is able to overrun so many diverse local economies around the world.

If society has other goals in mind than promoting corporate growth, then support can still be redirected towards transport infrastructures that serve the needs of smaller enterprises operating in more localised economies. It's not too late to shift course.

A simple exercise in *Worldwatch* magazine demonstrated how much less expensive such investments would be. The \$300 million budgeted for a single interstate highway interchange in Virginia, for example, could instead provide each of twenty different towns and cities with a 100-mile network of

paved, off-street bicycle paths. And the funds intended for a \$10 million highway expansion in Eugene, Oregon, could instead provide every Eugene resident over the age of eleven—all 93,000 of them—with a new bicycle, basket, lights, locks and raingear.

Some communities are rediscovering transport modes long ago abandoned in the quest for modernity. Bristol, Vermont, for example, recently awarded its trash collection contract to a local citizen who makes the rounds with a horse-drawn wagon. His bid was competitive with those from contractors using the latest mechanized equipment, but his horse had many other advantages: they are far quieter on their early-morning rounds than large trucks; they use local,

Big & Small continued on page 18

Money is Money; Wealth is Wealth

Speculative capitalism destroys real wealth

by David Korten

The capitalist economy has a potentially fatal ignorance of two subjects. One is the nature of money. The other is the nature of life. This ignorance leads us to trade away life for money, which is a bad bargain indeed.

The real nature of money is obscured by the vocabulary of finance, which is double-speak. We use the term 'investors' for speculators, whose gambling destabilizes global financial markets. We use the terms 'money,' 'capital,' 'assets' and 'wealth' interchangeably—leaving no simple means to differentiate money from real wealth. Money is a number. Real wealth is in food, fertile land, buildings, or other things that sustain us. Lacking language to see this difference, we accept the speculators' claim to 'create wealth,' when they expropriate it.

If in the 1980s we witnessed capitalism's triumph over communism, in the new millennium we may witness capitalism's triumph over life. For in the vocabulary of capitalism, the destruction of life to make money is progress.

When a defender of global capitalism asks, 'What is your alternative? We've seen that central planning doesn't work,' one can respond, 'Adam Smith had a good idea. I favor a real market economy not centrally planned by governments or corporations. The vital distinction here is between the market economy Adam Smith had in mind, and the capitalist economy, which he would have abhorred.'

In a healthy market economy, enterprises are human-scale and predominantly locally owned. People bring human sensibilities to bear on every aspect of economic life—resulting in self-organizing societies that maximize human freedom and minimize the need for coercive central control.

Capitalism, by contrast, is about using money to make money for people who have more than they need. It breeds inequality. Though capitalism cloaks itself in the rhetoric of democracy, it is dedicated to the elitist principle that sovereignty resides in property rather than in the person.

A real market economy creates real wealth. Global capitalism creates out-of-control speculation, which destroys real wealth.

- It depletes natural capital by strip-mining minerals, forests, and fisheries, and by dumping hazardous wastes that turn productive land and water into zones of death.

- It depletes human capital through substandard working conditions, as in the Mexican maquiladoras, where vital young women emerge after a few years with failed eyesight, allergies, and repetitive stress injuries that leave them permanently handicapped.

- It depletes social capital by uprooting factories on which communities depend—leaving society to absorb the family breakdown and violence that result.

- It depletes institutional capital by taking tax dollars through public subsidies and tax exemptions, and by weakening environmental standards essential to long-

term societal health.

Living capital, which has the special capacity to regenerate itself, is the source of all real wealth. To destroy it for money—a number with no intrinsic value—is an act of collective insanity.



David Korten

A real-world example of this insanity is the 1997 Asian financial crisis, in which a so-called 'financial miracle' became a meltdown. That meltdown began in Thailand and spread through Malaysia, Indonesia, South Korea, and Hong Kong, as economies fell like dominoes. While specifics differed, the experience of Thailand reveals the underlying pattern.

During the 'economic miracle' phase, large in-flows of foreign money fueled rapidly growing financial bubbles in stock and real-estate prices. (When too much money chases too few assets, those assets artificially 'inflate' in price.) Those inflated bubbles attracted still more money, much of it

from international banks eager to make loans to speculators, who secured loans with the inflated assets. As foreign currency poured in, consumers had the wherewithal to purchase imported goods, sales of which skyrocketed—creating the illusion of a booming economy.

Buying rapidly appreciating stocks or real estate seemed, for a time, a better deal than making productive investments in industry or agriculture. Ironically, the faster foreign investment flowed in, the more investors were sucked away from industry and agriculture—and production stagnated or declined in both. Foreign financial obligations thus rose, while the capacity to repay those obligations fell. Once the speculators realized this was not sustainable, the meltdown began. Speculators pulled money out in anticipation of a crash, stock and real estate prices plummeted, and banks were left with uncollectible loans—creating a liquidity crisis.

Capitalism can thus create an illusion of prosperity, even as it sets the stage for economic collapse. Lest we think this a rare example, we might note that since 1980, according to a McKinsey study, the financial assets of the world's largest economies have been growing at two to three times the rate of growth in gross domestic product (GDP). Bubbles are everywhere.

And it is in the nature of bubbles to pop—because trading away life for money is not, in the long run, sustainable. Here's hoping we learn this lesson more gently than Asian economies have, but learn it we will. Squandering real wealth in the pursuit of numbers is ignorance of the worst kind. The potentially fatal kind.

Re-printed by permission from the January/February issue of Business Ethics magazine, Minneapolis, MN. David Korten is the author of When Corporations Rule the World and the forthcoming The Post-Corporate World: Life After Capitalism due in March from Berrett-Koehler Publishers and Kumarian Press. ☸

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renewable resources (hay and oats) for fuel, rather than imported oil; and they are non-polluting, since the only wastes they produce are biodegradable—and a valuable source of organic fertilizer for nearby sources.

This is not necessarily an argument for the use of bicycles or horses everywhere in the world. If priority is given to the needs of local economies rather than to long-distance trade, and if locally-available resources are used to their full potential, then transport systems will tend to differ widely from place to place. This is only as it should be. It means communities are adapting to their local environments and their own internal needs, rather than conforming to the imperatives of a global economy—one in which the same corporate plan is recklessly followed everywhere.

Finding the Energy

While small-scale, decentralised economies can take advantage of a wide range of local energy sources, industrial economies are far more limited in the kinds of energy they can use: every major form of transport in industrial societies, for example, is powered by petroleum. Urbanisation, meanwhile, makes the use of decentralised renewable energy sources far more difficult. Instead cities must depend on centralised power plants that turn fossil fuels, nuclear energy, or hydro-power into easily-deliverable electricity.

Renewable energies in their various forms are distributed fairly evenly around the world—one place may have more abundant supplies of biomass but less wind, another more solar but less hydro-power—but the forms of energy needed for industrialisation and urbanisation are very unevenly distributed. This has not only been a famous source of international conflict but has spawned an immense worldwide trade in energy; almost half the world's annual consumption of oil, 14% of its gas, and 11 percent of its coal are traded internationally. At the start of this decade over a million kilometres of trunk pipelines were required for transporting natural gas, and an additional 400,000 kilometres of pipelines for oil. Transporting crude oil from source to refinery requires, among other things, some 2,600 tankers plying the high seas.

Shifting Direction—The Soft Energy Path

It is difficult to imagine the current crop of government leaders suddenly shifting support away from centralized energy supplies to embrace instead the full potential of decentralised renewable energies. Such a change in course would first require a shift in the vision those policymakers have of the future. In *The Whale and the Reactor*, Langdon Winner described the social and political structures inherent in the various energy options under consideration:

"Would it be nuclear power administered by a benign priesthood of scientists? Would it be coal and oil brought to you by large, multinational corporations? Would it be synthetic fuels subsidized and administered by the state? Or would it be the soft energy path brought to you by you and your neighbors?"

Only if there were intense pressure from below would leaders be convinced to pursue the latter path. But as with all policy choices, lasting solutions are not possible unless problems are traced to their root causes. Following a 'soft energy path' towards diverse, decentralised renewable energy sources is not an option if every other policy choice tends towards centralisation, larger scale, and high technology. ☸

More Small is Beautiful Excerpts Next Page

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Local Knowledge for Local Economies

More Excerpts from Small is Beautiful, Big is Subsidized

Wendell Berry . . . lists some of the roles the land grant colleges could fill that would be helpful for small farmers and their local, rural economies. These include developing small-scale technologies and methods appropriate to the family farm; promoting co-operatives and other means of protecting small farmers from corporate suppliers and purchasers; strengthening local markets for poultry, eggs, butter, cream, milk, and other farm products; and working to overturn the regulations that have destroyed such markets.

. . . if the goals are to feed people, to revitalize rural communities and local economies, and to maintain the stability of ecosystems, then public money for agricultural research might be devoted to such small-scale farming techniques as rotational grazing of dairy herds, or gaining a better understanding of the structure of Amish farming. If, however, the primary goal is to meet the growth requirements of corporations, then research funding will go towards such technologies as genetic engineering, which promises to give corporations an even tighter stranglehold on the world's food supply.

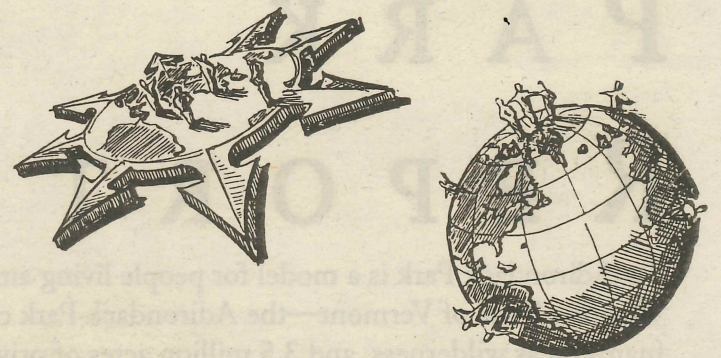
Revolving Doors

Appointees as well as elected officials are influenced by the corporate sector's wealth. The 'revolving door'—which leads in one direction to government positions and in the other direction to lucrative corporate jobs—helps explain the policy bias in favour of the largest enterprises among their supposed regulators. The intimate relationship between biotech cor-

poration Monsanto and the US government is not unusual. Mickey Kantor, close advisor to President Clinton, later became Secretary of Commerce and later still US Trade Representative; today Mr. Kantor is on Monsanto's Board of Directors. Marcia Hale went from being an assistant to President Clinton to working for Monsanto in Europe; she is now slated to return for another stint in government. The door between Monsanto and the Food and Drug Administration—the agency responsible for overseeing many of the corporation's products—has been spinning so fast it's difficult to keep track of all the comings and goings.

In Hope of a Future

Seen in the context of co-ordinated efforts to shift current policy, however, small local steps can take on a much larger significance. Groups from the grassroots can work together worldwide to elect representatives and compel governments to renegotiate the trade treaties. These steps can create the conditions in which communities will be better able to define themselves in location-specific ways that lead toward sustainability and equity, and will have the opportunity to support themselves without depending on global corporations. If countries link together to set limits beyond which corporations cannot go, their rape of the environment may cease, and ecosystems will have a chance to heal. If corporations are stripped of rights they should not have, then their corrosive influence on political life can be eliminated, and the constant din of commercialism can be quieted. ❁



Flat-earth Versus Round-earth Economics. Conventional economics is "flat-earth" economics. It implicitly sees the world extending without limit in all directions and imposing no serious constraints on economic growth. By contrast, ecological economics recognizes the world as a finite sphere – all resources come from the Earth and go back to it in a degraded form. Economic activity is therefore ultimately constrained by the regenerative capacity of the ecosphere.

For more information about the International Society for Ecology and Culture, contact ISEC at POB 9475 Berkeley, CA 94709 Tel. 510-527-3873 E-mail: isecca@igc.apc.org

Another resource for corporate reform is the Program on Corporations, Law & Democracy, POB 246 South Yarmouth, MA 02664. POCLAD maintains a website at www.poclad.org

Economist continued from page 15

tourism is necessarily any more sustainable or any lower impact than forest products manufacturing. Depending on how it's done, it can be just as bad or worse. A region needs to determine what its capacity is—whether for tourism visitor days or board feet of lumber—and then somehow find industry at the appropriate scale and try to stick to that scale, rather than overshooting and suddenly collapsing.

VBM: So if tourism grew too big, it could destroy the qualities that attract people, and then suffer a collapse?
PHILLIPS: Right.

VBM: You belong to the International Society for Ecological Economics. What is that?

PHILLIPS: It's a professional organization akin to others in economics, but it focuses on informing the techniques and the methods of economics by the principles of ecology, and vice versa, and so promoting a dialog between ecologists and economists, who have traditionally been talking past each other and not talking to each other at all.

VBM: So the working assumption is that if you leave ecology out of economics you are going to be ignoring some critical relationships or limits?

PHILLIPS: Yes. Economics, even natural resource economics, as it was taught, starting 30 years ago, looked at the economy as a sort of box, and then there was nature, which was this other box, and there were interactions between them. Waste would come out of the economy to be absorbed by nature, or raw materials would come out of nature to be transformed into products by the economy.

Ecological economics takes the entire economy box, and sticks it inside the natural environment box, and recognizes that the economy box is really a permeable membrane through which all kinds of services flow back and forth.

The notion of ecosystem service values has been a hot topic in ecological economics. An article in *Nature* last year pegged the annual output of the natural envi-

ronment at about three times the annual output of the human economy.

VBM: In cash value?

PHILLIPS: Yes. Nature supplies basic life support that makes the economy possible, and the cash value of that is enormous.

VBM: You also co-wrote an article called "Making Markets Work for Electric Energy Conservation."

PHILLIPS: Yep.

VBM: Do you have any advice for the Vermont Legislature on electricity deregulation?

PHILLIPS: Well, we wrote that article long before deregulation and energy wholesaling were on the horizon, and it dealt mostly with things like integrated resource planning and demand side management.

However, I think it has a possible application in suggesting that alternative sources of conservation should be marketed along with alternative sources of power. What people get from the electric company is not the thrill of kilowatt hours running through their circuits, but the services they get. They want cold beers and warm showers and lighted living spaces. They don't necessarily want kilowatts.

You can get those same services at a lower energy cost through conservation methods. If one could buy energy services instead of just energy, it would open up the perspective of the Legislature, maybe consumers as well, to think about their options. It need not be a choice just between power from Hydro Quebec or a generating plant in the state. You might buy some power from each of those, but you might also contract with an energy services company to do a lighting upgrade, and then they would be obligated to insure that you were actually using fewer kilowatt-hours.

VBM: For that portion of your load.

PHILLIPS: Right.

VBM: What do you and your family do in your time off?

PHILLIPS: Oh, half of the year we ski. A trail runs

right past the backyard. My older daughter is showing a sheep at the Champlain Fair next week, so that's taking a little time. And we are home schooling her, so we are involved with that a good bit.

One of my interesting challenges is trying to create market advantages for more ecologically sensitive forestry. One way is through certification. Another is to simply help these firms become more efficient, both thermodynamically and economically. Are they using supplies of surplus or scrap wood? Or are they selling their surplus or scrap wood to somebody who can use it, rather than simply putting it into the hog boiler?

Also, we're working on establishing a flexible manufacturing network in western Maine which would help companies work together to meet bigger orders. There's less risk for them that way, and they would be better able to compete with larger firms, either offshore or in other parts of the United States.

VBM: Are you optimistic about finding the sorts of improvements you're looking for?

PHILLIPS: Yes. I think they're there. I think consumers are becoming more informed and more aware of the connection between their forest products consumption and conditions in the forests themselves.

VBM: What economic resources do forests provide other than timber or fiber?

PHILLIPS: Well, of course, there's the whole gamut of ecosystem services. They protect watersheds; they keep soil in place. There are the direct effects on recreation and tourism dollars. People in the business of guiding, or selling or servicing recreational equipment, get a direct benefit.

A more indirect benefit is the amenity values. People are attracted by a nice place to live. They either bring their job, or they create their job when they find a way to stay in the area, and therefore keep their job in the area, because of the amenity.

As Ed Whitelaw at EcoNorthwest puts it, "People get a second paycheck." They get their regular paycheck, plus they get the paycheck that comes in the form of the amenities. That's also what shows up in land values.

ADIRONDACK PARK REPORT



The Adirondack Park is a model for people living amidst wild areas in a way that's usually mutually beneficial. At six-million acres in size—bigger than the State of Vermont—the Adirondack Park contains a checkerboard of publicly owned Forest Preserve lands (2.5 million acres), which is managed as wilderness, and 3.5 million acres of private lands, 2.5 million of which is commercially managed forests. The Forest Preserve is protected as lands "to be forever kept as wild forest" in the state constitution. This is the tightest wilderness protection in the U.S.; no timber harvesting, strictly limited use of motor vehicles. Created in 1885, lands in the Forest Preserve represent 85 percent of the total wilderness lands in the 11 northeast states. 130,000 people make their homes and livelihoods in the Adirondacks spread throughout better than 100 communities. All land uses in the Adirondack Park are managed jointly by the State of New York, through various agencies and departments, and local governments. While there are many complaints all around, the Adirondack Park works extremely well and is not only a place where people and wilderness systems coexist, but represents a successful model for large-scale landscape protection. Each issue the 'Adirondack Park Report' details the most pressing current issues facing the Adirondack Park.

The Champion Deal in New York

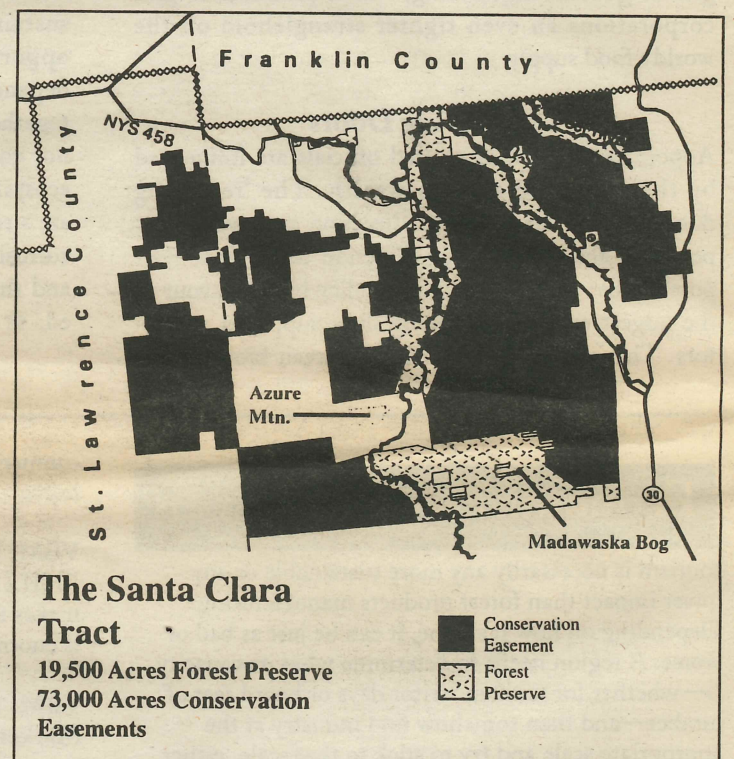
On December 9, 1998, Governor George Pataki stood in the state museum in Albany in front of the Adirondack river log-drive display and announced that the State of New York had reached agreement with Champion International Corporation to protect 139,000 acres in the Adirondack Park. This is the single largest land purchase in New York State history. The monumental deal calls for the state to purchase 29,000 acres in fee title for addition to the "forever wild" Forest Preserve. These lands include nearly 70 miles of wild rivers that have been closed to the public for much of the 20th Century. On another 110,000 acres the state will purchase conservation easements to extinguish the development rights and secure public recreational rights over the property. The timber management rights will be purchased by the Forestland Group, a private timberlands investment company from North Carolina that specializes in sustainable forestry.

The deal was brokered by the Conservation Fund, a not-for-profit land protection organization from Virginia, that purchased all the Champion lands in Vermont, New Hampshire and New York. In New York, the Conservation Fund expects to transfer all

the Adirondack lands to the State of New York and Forestland Group by June 1999. In New York, the Champion lands are located in three parcels in different areas of the Park. (See maps as part of this story.)

This deal is important because it marks a significant investment in the economy and ecology of the Adirondack Park by the state. The economy is given a boost by ensuring, through the purchase of conservation easements, that logging will be sustained on the property. The new recreational opportunities created by opening long-closed rivers will in turn create new economic opportunities for outdoor guides and those who market or facilitate outdoor equipment or outdoor experiences. This deal stabilizes tax payments on these lands to local communities. Affected communities should see over \$100,000 in increased tax revenues due to the sale. The State of New York pays all local taxes on Forest Preserve lands and conservation easements in the Adirondack Park. Importantly, only 70 percent at most of the annual growth will be cut on the easement lands for the next twenty years and annual cutting will never exceed annual growth. Sustainable forestry equals sustainable employment.

As to ecology, this deal adds 29,000 acres to the Forest Preserve, which provides the tightest environmental protection possible for forested landscapes. No development will take place on the remaining 110,000 acres. The most sensitive and important ecological resources on the Champion lands were protected by purchase for the Forest Preserve. These lands include nearly 70 miles along five wild river corridors and all of Tooley Pond,



Madawaska Pond and Quebec Brook, Mud Pond, Green Pond, French Pond and Gregg Lake. This deal also ensures that the timber lands will be managed sustainably and managed to protect biological diversity and wildlife habitat. This deal ensures that liquidation cuts of these lands will never happen.

The Forestland Group (TFG) is a private investment group that manages a forest for its long-term potential, in short to grow high-value hardwood trees. This management approach keeps the best trees in the forest growing and gaining value. TFG will establish a regional forester and work with local contractors for forest management and harvesting. TFG has also established a site to locate a hardwoods saw mill at some point in the future. A forest management plan, approved by the Adirondack Park Agency (APA) and Department of Environmental Conservation (DEC), is also part of the deal. An application will be submitted to these agencies in the future.

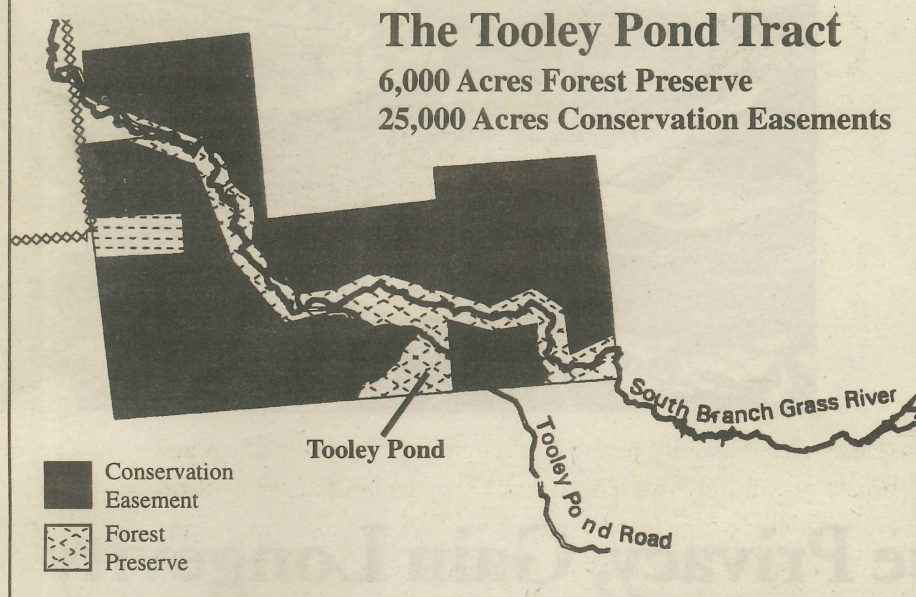
Some groups, like the Blue Line Council headed up by Pieter Litchfield, have unscrupulously charged that this deal will result in a loss of jobs. Nothing could be further from the truth. This deal ensures that all current jobs will remain and provides new opportunities for those in outdoor recreation businesses. The Blue Line Council irresponsibly charges that 35 jobs were lost when the state purchased the Little Tupper Lake tract last summer, though they could



St. Regis River, Middle Branch Photos on these pages courtesy of Tom Parsons.

The Tooley Pond Tract

6,000 Acres Forest Preserve
25,000 Acres Conservation Easements



never produce a single individual who lost his or her job or an employer who eliminated a position. It's also important to note that in the days after the announcement, the Blue Line Council, which represents interests of some timber companies, called on the state not to purchase any more conservation easements that change current cutting levels. Seems Litchfield and company have a problem with sustainable forestry.

The 29,000 acres of lands purchased for the Forest Preserve includes nearly 70 miles of river corridors, ranging in size from 1/4 mile on each bank up to one mile. On the Santa Clara tract 24.7

miles of lands along the St. Regis River were purchased, 17 miles on the East Branch of the St. Regis River, and 5.9 miles on the Deer River. This deal opens these rivers for public use and provides camping and portage opportunities. The largest block of Forest Preserve purchased is found in the Madawaska Pond and Quebec Brook area. At 10,000 acres, this purchase links together 12 isolated parcels of Forest Preserve, provides access to the pond and brook, and ensures that this complex, rare bog and wetland area is forever protected. Additionally, 92,500 acres will be protected by purchase of conservation easements. These are the most productive timberlands that Champion owned. This deal keeps the best timberlands producing logs for mills, rather than lots for development.

The Tooley Pond Tract contains a purchase of 6,000 acres for the Forest Preserve, which includes lands along 18.7 miles of the South Branch of the Grasse River and 2,000 acres around Tooley Pond and Tooley Pond Mountain. This deal also includes 25,000 acres in conservation easements. The Gregg Tract includes 3,500 acres in Forest Preserve, 12,000 acres in conservation easements and protection of 3

miles of the West Branch of the Oswegatchie River and public access to four lakes and ponds including Gregg Lake. In addition to the new canoe routes opened, this deal provides over 300 miles of new roads for public use on lands where the state purchased con-



South Branch of Grasse River Champion Lands Town of Clifton

servation easements. This will more than double the amount of roads open to the public for use of motor vehicles, including all terrain vehicles, on state owned lands in the Adirondack Park.

It's also important to note that Champion has decided not to sell its paper making mill in Defriet, just west of the Adirondack Park boundary in Jefferson County. Champion has announced that this mill will operate at full capacity for the foreseeable future. The State of New York will pay \$24.5 million for the property and various rights. These funds were provided from moneys allocated from the 1996 Environmental Quality Bond Act. We in New York extends a hearty congratulations to Governor George Pataki and

Department of Environmental Conservation Commissioner John Cahill and his senior staff for a job well done.

Blue Mountain Lake Project To Be Announced

The State of New York will soon announce a new land deal on Blue Mountain an Utowana lakes in the central Adirondacks. This deal includes Forest Preserve purchase of eight islands on the Blue Mountain Lake and 300 acres on its north shore including Castle Rock. A conservation easement will also be given and sold on three islands in the west bay of Blue Mountain Lake and on the north shore of Utowana Lake. This land is being sold to the state at a generous bargain basement price by the Hochschild Family, who have owned the property for over 100 years. The deal was put together by the Lyme Timber Company. Long time stewards of Blue Mountain, Eagle and Utowana lakes

and surrounding lands, the Hochschild family will also endow funds for a summer steward to monitor the fragile island and shoreline areas. This is a terrific deal and totals over 1,200 acres.

ACID RAIN

Senators Moynihan and Schumer of New York, along with Senator Jeffords of Vermont and Lieberman of Connecticut, submitted the Acid Rain Deposition and Ozone Control Act in January. This bill mandates greater reduction in sulfur dioxide emissions and creates a new emissions control program for nitrogen oxides. All emissions would be steadily reduced and capped at 70 percent of 1990 levels. Noted environmental legislator, Sherwood Boehlert, of Utica, introduced the bill in the House of Representatives. This bill also mandates that the Environmental Protection Agency (EPA) must reconfigure the program if reductions are not met and environmental recovery is not seen in places like the Adirondacks. Under the 1990 Clean Air Act Program, nationwide emissions for sulfur dioxide and nitrogen oxide have fallen, while rising in the Adirondacks. If new reductions are not made, it is predicted that fully one half—nearly 1,000 more—lakes and ponds will die throughout the Adirondacks. ❀

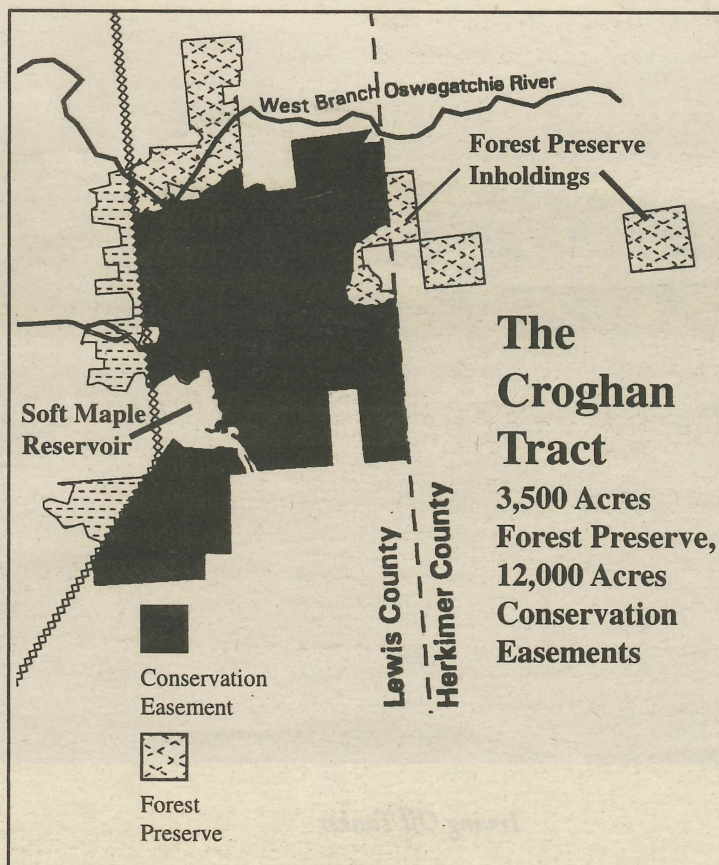
Maine Global Climate Change Conference

A two day conference on April 7 and 8 in Lewiston will address the impact of global climate change on the state of Maine. Topics will include:

- *raising awareness about possible consequences of climate change
- *impact on Maine communities, forestry, tourism, fisheries, agriculture, commerce and public health

- *strategies to avoid or adapt to climate change

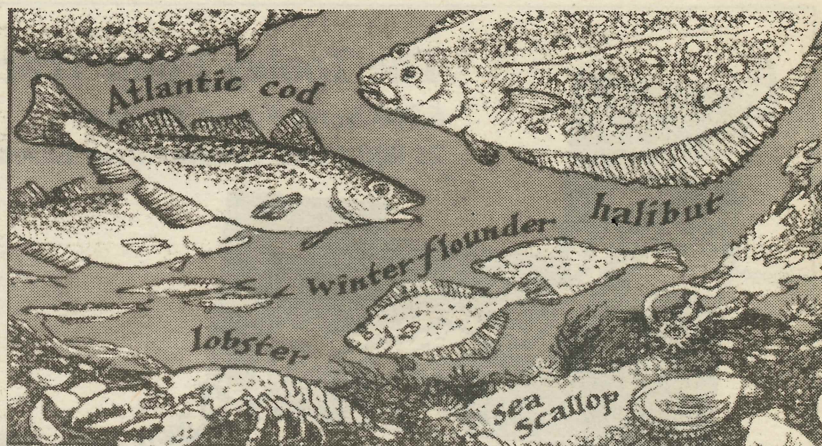
Pam Person of the Coalition for Sensible Energy is the conference co-chair and may be contacted for more information: 207. 469. 6770. Co-sponsors range from Bangor Gas, Champion International, Endless Energy and Enron Corporations to the League of Women Voters, Maine Sierra Club, Maine Solar Energy Association, public agencies and various educational institutions. ❀



The Croghan Tract

3,500 Acres Forest Preserve,
12,000 Acres Conservation Easements

Coastal Waters Watch



Northern Right Whales Lose Privacy, Gain Longevity

by Ron Huber

Privacy is nice, but when it comes to the northern Right whale, privacy can often lead to sudden death. The slowmoving right cetacean, lacking a telltale backfin to alert ships' captains, has fallen prey time and again to sudden impact syndrome—the conjoining of ship hulls with surface-drifting whales.

In late winter and early spring, Right whales migrate from wintering and birthing areas off the southeastern US into the Gulf of Maine. Before the advent of industrial whaling at the last turn of the century, right whales by the thousands made their phlegmatic way on this journey, timed to feed on zooplankton blooms, which themselves are seasonally dependent on phytoplankton blooms that accompany warming surface waters.

Whale hunting has ceased in US waters for now; right whales have failed to recover, however. Their population remains around 300 individuals. Lobster line entanglements have been implicated in whale mortalities. However, ship rammings of both adults and young right whales meandering up coastal shipping lanes is believed to be the major cause of right whale killings at present.

As part of the right whale protection agreement that flowed out of the GreenWorld lawsuit earlier this decade, researchers and government agencies have mounted an intensive right whale surveillance initiative to keep track of the creatures, with hopes of preventing ship strikes by warn-

ing vessels of exact right whale locations. The list of whale watchers—the U.S. Navy, the U.S. Coast Guard, the Army Corps of Engineers, NOAA Fisheries, NOAA's National Marine Sanctuaries

WHALES POACHED—DNA SLEUTHS FINGER WHALE 'RESEARCHERS'

Nature magazine reported in its January 28 issue that a pair of American scientists used DNA analysis to prove that the flesh of a hybrid blue whale/fin whale killed by Icelanders for 'research' ended up in an Osaka, Japan seafood market.

Program, and a host of Atlantic state agencies and nongovernmental organizations—is extensive enough that one wonders how they keep from tripping over each other.

More than a thousand square miles of ocean encompassing high-use shipping vessel traffic lanes are now being kept under aerial surveillance by observers aboard aircraft flying a scant 750 feet above the ocean recording the right whales' locations. Information from the flights is given to vessel captains on the increasingly heavily traveled Atlantic coast sealanes, allowing them to modify their courses sufficiently to avoid a deadly (for the whale) encounter.

You too, can join this invasion of cetacean privacy, though from the comfort of your home or office instead of the rattle and hum of a spy plane.

Simply set your web browser to www.rightwhale.noaa.gov and you'll be 'On the trail of the Northern Right Whale' as the lively and informative website labels itself. ☼

SLIME LEGION GUMS UP THE WORKS

In a display of Neptune's canny ability to defend itself, vast arrays of some as-yet-unidentified jelly creature massed offshore of Maine right at the onset of the shrimp netting season, gumming up the harvest.

Mid-December and January are traditionally when small boaters by the score put trawl nets on their vessels and head out to scoop up millions of in-migrating roe-heavy Northern Shrimp, *Pandalus borealis* as these megaplankton move into coastal waters en masse for their annual spawn-athon.

Lying in giant 'pods' below the surface, the coelenterates were themselves scooped up in the nets of would-be shrimpers, fouling the mesh of the nets so completely that the nets actually worked like cow-catchers on railroad engines, pushing and repelling the shrimp safely aside and away from the nets, then the boats pulled the nets through the shrimp schools. Slimed fishers were forced to leave off fishing and return to port, as the sticky jellyfish could only be removed by hours of high pressure hosing.

Some in the scientific community hold that contemporary fisheries management is actually, though unwittingly, a long term management strategy for simplifying the marine ecosystem down to jellyfish and microbes. Perhaps the slime pods forming off the Maine coast is an early warning of things to come. ☼



Irving Oil Tanker

FEDS NIX HARBOR PORPOISE PROTECTION UNDER ESA IN GULF OF MAINE

Did the National Marine Fisheries Service err in opting against listing the Gulf of Maine's harbor porpoises as 'threatened' under the Endangered Species Act? Or have the chief threats to these marine mammals been ameliorated?

Nearly a decade ago, the Sierra Club Legal Defense Fund filed a petition with the National Marine Fisheries Service, calling for protection of dwindling numbers of Harbor Porpoises living in the Gulf of Maine and Bay of Fundy. Last month, following nearly a decade of reviews, workshops and a lawsuit, the agency ruled that the species had recovered sufficiently to make a listing as 'threatened' unnecessary.

Diminutive cousins of the familiar bottlenose dolphins of 'Flipper' fame, harbor porpoises, (who max out at 6 feet, half the size of their relatives) follow the vast schools of squid, herring, mackerel and sand eels that move seasonally throughout the Gulf of Maine/Bay of Fundy complex (GOM/BOF). Springtime finds them concentrating by the thousands in the southwestern Gulf, off Massachusetts, New Hampshire and southern Maine. In the summer the porpoises disperse throughout the GOM/BOF region, many venturing northeast into the Bay of Fundy.

But porpoises are not the only ones following the squid and other 'forage species'. Cod and other groundfish do as well; the sinking monofilament gillnets that many commercial groundfishers stretch across the seafloor to catch them are invisible to the sonar sense of the porpoises. Up to 2,000 porpoises were drowning annually in the Gulf and North Atlantic, entangled in the monofilament.

The petition, which SCLDF had brought on behalf of the International Wildlife Coalition, spawned years of status reviews, workshops, public hearings, ever-receding deadlines, and even a congressional ban on ESA listings under the Gingrichian Congress. Final decisionmaking languished until two groups, the Humane Society of the US and the Center for Marine Conservation, filed a lawsuit charging that the federal agency's dilatoriness was in contravention of the agency's duty to "protect the Gulf of Maine harbor porpoise from death or injury due to incidental take in the New England gillnet fisheries."

Researchers had found that the nets which were causing thousands of porpoise drownings each year, could be rendered sonar-visible by clipping 'pingers',

coffee-can sized vibrating noisemakers, onto the nets at regular intervals. First used in Canadian waters to keep whales from running into nearshore fish traps, test-use of pingers on gillnets in Maine waters resulted in a greater than 90% drop in porpoise entanglements and drownings.

But research is one thing; regulation is another. It took pressure from the litigators and from public discontent with needless porpoise slaying, to force action. In the end regulators hammered out agreements with the gillnet industry. Two regulations in particular seem to be having a significant effect: making the use of 'pingers' by gillnetters mandatory, and closing areas to gillnet fishing during the months that they are frequented en masse by harbor porpoises.

Effective? A 1993 Environmental Impact Statement for the Stellwagen Bank National Marine Sanctuary off Cape Cod pegged the number of harbor porpoises in the Gulf and Bay of Fundy at

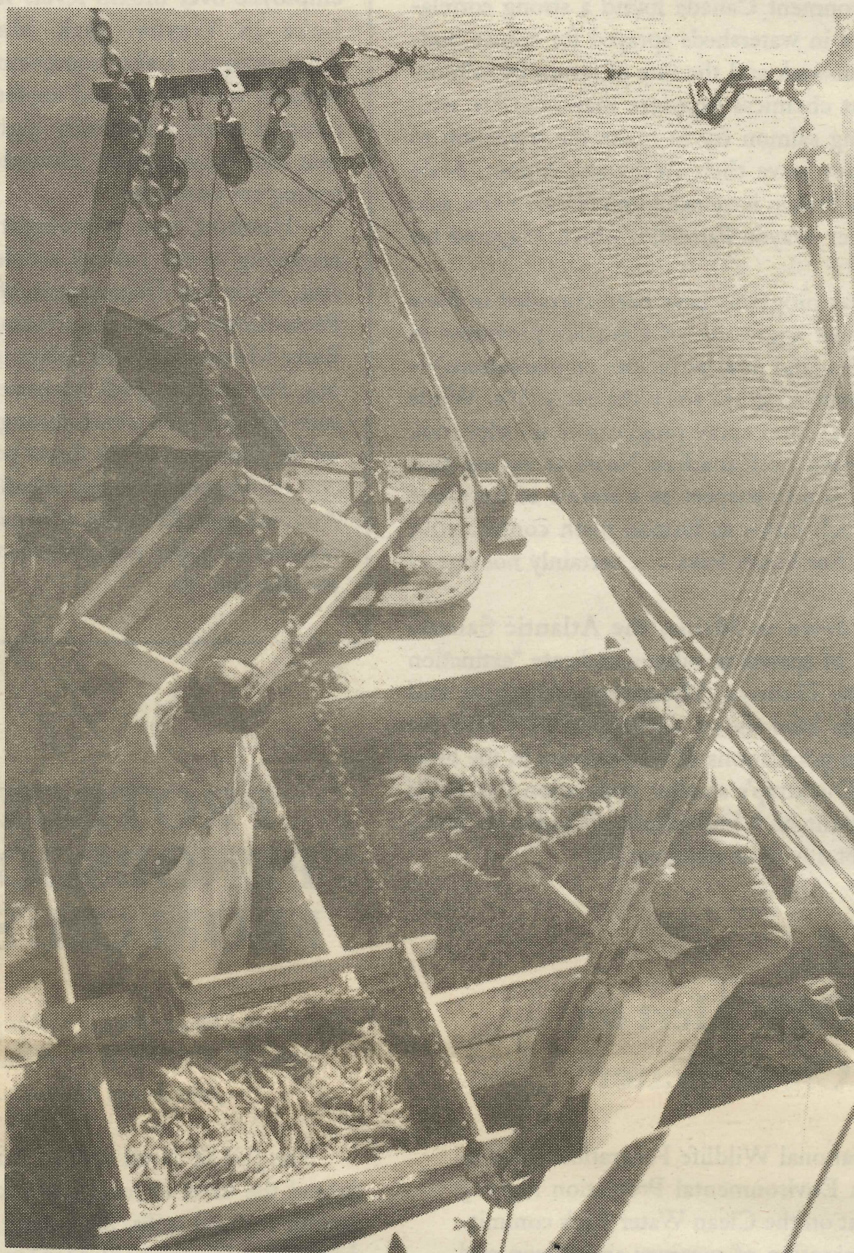
approximately 16,000 animals. National Marine Fisheries Service estimates the present population at nearly quadruple that. But most population surveys of

this animal to date are considered problematic.

The math for the fisheries is simple enough, however. Under the Marine Mammal Protection Act, no more than 483 harbor porpoises can die from gillnet entanglement (or other human caused deaths) if the species is to recover to stable levels.

By January 2000, NMFS will have to take yet another look to see if the so-called 'take reduction plan' of pingers and closures has been effective in dropping porpoise kills below the recovery threshold. Conservationists, such as Roger McManus, president of the Center for Marine Conservation, remains skeptical.

In a press release, McManus warned, "If the plan doesn't work, we will go back to court to make sure that NMFS carries out its legal duty to protect harbor porpoises."—R.H. ❀



Shrimp Trawler

Whales on the Increase — and Decrease

Some say it could be viagra in the Boston outfall, but whatever the cause, the number of humpback whales living in the Gulf of Maine has almost doubled since the last major survey done in the 1980s. According to the Center for Coastal Studies at Provincetown, Massachusetts, the North Atlantic population of Humpback whales has shot up from an estimated 5,505 individuals to approximately 10,600.

Meanwhile, the number of right whale progeny continues to slide toward zero. Last month the National Marine Fisheries Service and the New England Aquarium reported that this year only two Northern Right whales were born in the south Atlantic birthing waters. In 1997, seventeen rights were born; in 1998 the number had dropped to 6. This year's drop occurs despite reports that NO right whales were killed by ship collisions in the last two years. ❀

TEMPORARY SEMI-WILDERNESS FOILS GULF OF MAINE SHRIMP-CATCHERS

State, Feds free Gulf Of Maine codfish from (some) disturbance during annual spawning confabs. but bow again to pressure from the big guys.

Winning in the Arguably-Better-Than-Nothing category of temporary wilderness area designation, (presently in vogue in the Gulf of Maine marine resource management circles), is the federally-approved plan put forward by the New England Fishery Management Council that enacts monthlong 'rolling closures' of areas across the southwestern Gulf of Maine (the area directly offshore Massachusetts, New Hampshire and southern Maine) to bottom trawling while cod are gathered for their courting and spawning activities.

Calls by small boat fisherfolk for a three year total shutdown of all commercial fishing in the Gulf fell on unsympathetic ears at the January '99 meeting of the lopsidedly pro-big industry New England Fishery

Management Council. Instead, the above-mentioned monthlong temporary shutdowns of selected inshore fishing areas was enacted. Irate small boat fishers call the plan an effort by corporate fishing interests to put them out of business.

'Shutdown', however, is somewhat of a misnomer. While bottom trawls and scallop draggers are barred from attending the cod spawnfests, the list of permitted fishing gear includes: hook and line, longline, spears, rakes, diving gear, cast nets, harpoons, weirs, dipnets, stop nets, pound nets, pelagic gillnets, lobster traps, shrimp traps, shrimp trawls, clam dredges, quahog dredges and midwater trawls.

In other words: Spear it, rake it, hook it, harpoon it, trap it, pound it or dredge it, but for gosh sakes don't TRAWL it! This is a PROTECTED AREA, after all . . . ! ❀

Atlantic Salmon Mortality Tied to Bud Worm Sprays

Canadian researchers are keying in on gender bending chemicals as one key to the multi-faceted mystery of Atlantic salmon mortality, reports the Canadian Press in an article of January 12 written by Chris Morris.

Research by the federal Department of Fisheries and Oceans and Environment Canada found a strong correlation between rivers in watersheds sprayed for spruce budworm in New Brunswick and the rate of return by salmon. The theory is that chemical exposure may interfere with the ability of young salmon fry to make the transition to saltwater when they leave their freshwater homes. Male Atlantic salmon in Britain have exhibited female traits, said Canadian researcher Wayne Fairchild, which triggered his line of inquiry.

Budworm spray programs have been curtailed in New Brunswick, the most aggressive of Canada's provinces in spraying insecticides (and now herbicides on plantations)—an almost continuous program since the early '50s. While the suspect chemical from spray programs is nonylphenol, Fairchild was quoted by Canadian News as saying that municipal sewage is also suspect as a source of hormone disrupters from such items as human birth control pills. There really is no free lunch folks... certainly not one of Atlantic salmon.

Meanwhile, down in Maine, the Atlantic Salmon Authority records of spawning salmon indicate "extinction in progress." The Dennys, Sheepscot, Machias and Narraguagus Rivers have shown declines of 90% over the past 12 years, from populations of wild salmon in the hundreds; while the Ducktrap's smaller population has fallen 75% to a 1998 count of 9 individuals. (Thanks to Doug Watts, fks@gwi.net, for these numbers.) ❀

NWF Alert on Clean Water

The National Wildlife Federation alerts us to an Environmental Protection Agency retreat on the Clean Water Act's commitment to elimination of mercury and dioxin and other persistent compounds.

NWF writes, "The release of these chemicals must be completely eliminated. That is why NWF and our allies fought for and won zero discharge and virtual elimination policies adopted by the United States and Canada that are designed to eventually eliminate these chemicals from the environment. But now the policies of zero discharge and virtual elimination are in danger. The U.S. EPA has published its long-awaited "Multimedia Strategy for Persistent, Bioaccumulative, and Toxic (PBT) Pollutants." The strategy takes EPA incrementally in the right direction by focussing on all pollutant sources—air, water, and land; and it is an important step in integrating EPA programs that have been fragmented and ineffective. As an effort to implement zero discharge and virtual elimination, it is worse than timid; it is actually a retreat.

"The EPA strategy abandons the goal of eliminating persistent toxic substances in the Great Lakes and other watersheds, and fails to propose the most effective policy tools—bans and phase-outs of chemicals—needed to achieve that goal. It does so even though the EPA is bound by both the Clean Water Act and the Great Lakes Water Quality Agreement with Canada to work toward zero discharge and virtual elimination goals."

Although the public comment period has passed, you can keep abreast of developments by writing National Wildlife Federation at 8925 Leesburg Pike, Vienna, Va 22184; tel. 1-800-822-9919 or e-mail to: action@nwf.org. ❀

Our Toxic Planet: A Lake Debate

The Kennebec Journal of 12-7-98 reported a difference of opinion between state officials and a retired National Marine Fisheries employee over dioxin levels in Androscoggin Lake in Wayne. Jack Mahoney of the Androscoggin Lake Improvement Association samples lake waters and argues that fish tissue samples show sufficiently high contamination that fish consumption advisories and sediment testing are warranted.

However, state toxicologist Andrew Smith, according to the Journal article minimized the risk, while the Department of Environmental Protection's dioxin monitoring administrator Barry Mower defended delays in the state's testing. For his part, Jack Mahoney hopes to pressure officials into action through a campaign of public awareness of the threat posed by dioxin.

Androscoggin Lake usually flows into the Androscoggin River but seasonal back flows have resulted in paper mill pollutants contaminating the lake bed. ❀

PROTECTING PENOBSCOT BAY FROM OIL SPILLS

The Coastal Waters Project will be part of the upcoming CANUSLANT 99 Oil Spill Exercise scheduled for June 2-4 in Eastport, Maine.

The JULIE N oil spill in Portland Harbor highlighted the value of local knowledge and expertise in dealing with oil spills. As a result the Coast Guard is developing "Local Spill Management Teams" - one for each major port area.

The concept of the team is to 'plug in' local experts into the Federal and State's Management Team to augment the team at least for the first 24-48 hours, until re-enforcements arrive from national response teams. And even after the national teams arrive, local citizens will still be plugged in to the spill-response to ensure their issues are being addressed.

It's a win-win situation for both the citizens and the government agencies charged with responding to spills: The Coast Guard is happy because stakeholders with knowledge of the area are involved in the decision-making process. For local citizens, it ensures their issues are met during the response.

In preparation for the exercise, Coastal Waters Project members will receive Incident Command System (ICS) training on April 12-14 at the Naval Reserve Center in Portland, Maine.

Over the last three years, Coastal Waters Project has participated in "tabletop" oil spill exercises in Bangor and Portland.

If you are interested in working with Coastal Waters Project on a local spill management team to help protect Penobscot Bay in the event of an oil spill, please contact Ron at (207)594-5717 or by email at <coastwatch@acadia.net> or by postal mail at: Coastal Waters Project, 418 Main Street, Rockland ME 04841.

Controlling Invasive Exotics CWW Joins Coalition Petitioning EPA for End to Ballast Exemption

On January 19, 1999, NARP's Coastal Waters Project and 14 other groups and agencies around the US filed a petition with the US EPA calling on the agency to revoke a three decades-old pollution permit exemption for commercial ships' ballast water discharges from the Clean Water Act.

The petitioners say that while US military ships are specifically exempted from the Act, the EPA erred when it enacted regulation 40 CFR sec 122.3(a) extending the exemption from the military to civilian shipping.

The release of ballast water, which is used to stabilize ships arriving at U.S. ports, is known to be the largest single cause of exotic species invasions in the United States. From cholera to green crabs, unintentionally introduced exotic species are altering aquatic, marine and terrestrial ecosystems both in the US and abroad, and producing headaches for a host of water dependent industries.

More than 21 billion gallons of ballast water are discharged into US waters every year; Congress estimates that more than five billion dollars in damage will accrue to water pumping systems and fisheries from colonization by a single species, the zebra mussel, which was brought to the US in the ballast water of ships arriving in the Great Lakes from the Baltic Sea. Impacts from other colonizing exotic species puts the costs approaching the trillion dollar mark.

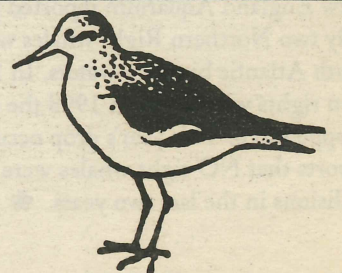
Expanding shipping through ports in Maine, New Hampshire and Massachusetts are raising the likelihood that exotic, potentially destructive species will be dumped into the Gulf of Maine in ships' ballast.

The petitioners note that the Clean Water Act specifically bars "the addition of any pollutant to the navigable waters from any point source." Ships are specifically identified as point sources of pollution under the Act.

Because ballast water is known to contain invasive plant animal and microbial species, all of which qualify as biological materials under the Clean Water Act, the petitioners maintain that, just like any land-based pollution discharger, ships must obtain NPDES permits to discharge polluted ballast water into "waters of the United States."

The twelve page letter to Carol Browner sums up the groups' position as follows, "Petitioners believe that in light of the clear statutory language, congressional intent and case law, EPA should repeal 40 CFR 122.3(a), thus paving the way for the regulation of ballast water discharges under the CWA. The exclusion provided in 40 CFR 122.3(a) is plainly inconsistent with the CWA and should be eliminated as quickly as possible to help prevent the further degradation of aquatic resources from [Non Indigenous Species]."

EPA is studying the petition; if as expected, the agency denies the petitioners' request, litigation is likely. ❀



Vermont Energy Debate—De-reg, Bankruptcy, or Public Power?

by Andrew Whittaker

The Vermont utility restructuring picture continues to develop along separate lines, as reflected by the Administration's continuing support for utility deregulation and the Legislature's support for exploring other options.

To these options has been added the proposal by several consumer-owned electric co-ops to buy out the utilities caught in contracts to Hydro-Quebec that threaten bankruptcy for CVPS and GMP.

A legislative proponent of public power is Burlington Progressive representative Dean Corren, who also sits on the board of the Burlington Electric Department, that city's electric co-op. Corren recently spoke to a group in St. Johnsbury about the advantages of consumer-owned power.

In his remarks Corren noted that electricity is Vermont's third greatest cash outlay, after health care (\$1.5 billion) and education (\$800 million) at \$600 million. Those dollars, he pointed out, are exported from the state.

Corren is a critic of deregulation, which he believes is being used as a front for a utility bailout from its Hydro-Quebec commitments. De-regulation, he said, is a misnomer in that it requires more regulation, of consumer fraud, for instance. The premise that deregulation will lead to greater competition and thereby reduce rates to consumers is a deception, according to Corren, in that the industry is captive to long term planning horizons and that power supply is a relative constant. On the other hand, deregulation could lead to greater susceptibility to short term spikes in pricing such as occurred in the West last year.

Cooperative power for the state would give consumers the ability to reduce power consumption, as the impetus to conserve power would be part of the cooperative's mission. Conservation hasn't been effectively pursued under today's regulated environment, and in some cases, he said, the Public Service Board has even acted against publicly supported conservation

measures. Cooperatives linking Vermonters could leverage their purchase of outside sources of electricity as well, Corren said.

Meantime the Legislature is also acting to limit the ability of utilities to 'securitize' or float bonds to pay off contracted debt, more or less a chess move to prevent unilateral de-regulation through industry-Public Service Board negotiation.

Speaker Michael Obuchowski, in commenting on the proposal to merge Vermont's three utilities into one, advocated by Governor Dean's working group on deregulation, said that rate reduction and reliability of service are his two paramount objectives. It is not clear that merger would reduce utility obligations to HQ and thereby deliver reduced rates to consumers.

The working group has advocated merger in combination with the elimination of monopoly, effecting consumer choice of retail providers, and a re-negotiation and payoff of the Hydro-Quebec debt. This committee was co-chaired by William Gilbert, who serves on the board of Vermont Gas, a Hydro-Quebec subsidiary, a connection often noted in exchanges of opinion on deregulation.

The bankruptcy option has been criticized by Lewis Milford of the Clean Energy Group and formerly of the Conservation Law Foundation. Restructuring in Vermont will only reduce the rate of increases, and not reduce power rates, he said. Bankrupting the utilities will however obscure the opportunity through deregulation to improve the environment, energy efficiency and consumer choice, said Milford.

Another interesting tidbit emerged in an interview by The Rutland Herald of GMP CEO Christopher Dutton (February 11). Dutton noted that Hydro-Quebec is open to renegotiation of the infamous contracts "if in fact restructuring of our industry comes to Vermont."

Hydro-Quebec wants deregulation in Vermont, and for many, that is prima facie evidence that other

options should be explored. Among these options WILL NOT be that of local purchase of the generating dams on the Connecticut River, as some activists have advocated: these have already been traded into the hands of Pacific Gas and Electric as cards in the giant Monopoly game called Utility Restructuring.

✿

Millions of Acres of Siberian Forest Burn

The Pacific Environment and Resources Center reports that fires in the Russian Far East burned over 3 million acres last year. Remoteness, lack of summer rain and fall snow, and the disarray in the Russian government and economy together hobbled firefighting efforts. GreenPeace estimates damages at \$31.5 billion dollars; these include human health impacts and destruction of salmon rivers and habitat of the endangered Siberian tiger.

The Russian fires are part of a global phenomenon of increased incidence of forest fires that may be an expression of climate change, some scientists say, who also point out that forests play an important role in sequestering atmospheric carbon. 50 million tons of toxic carbon gases may have been released by the Russian burning in the Khabarovsk Region where public health officials reportedly advised pregnant women to abort because of the possibility of birth defects from the lack of oxygen. 90% of the Siberian fires were human induced, caused by careless tourists and logging activity. ✿

THE ALTERNATIVE FIBER PULP MILL PROJECT

by John Stahl

Wood is a very poor choice for making paper: it is low in cellulose (the stuff of paper) and high in lignin (impurities that must be removed in the pulping process). The conversion of our Ancient Forest first into pulp, then into paper, and finally into landfill, has been one of the major follies of the human race, in its long history up from the edge of the sea. Conventional pulping with wood is a very dirty business, since so much wood pulp has to be processed in order to extract a small amount of cellulose, and the high levels of lignin make it hard to whiten the paper without the use of chlorine bleach, putting dioxin into our water supply.

The New World Pulper

The cornerstone of our project is the New World Pulper, a whole new design from Ukraine which promises a highly efficient, very clean, closed loop process for pulping the whole stalks of annual plants. There is a high level of process integration which provides a better and higher yield at less cost, with less usage of water and power, and no toxic waste. If this device works as promised, it will provide a whole new opportunity for a major reorientation of the pulp and paper industry away from the dependence upon trees, and towards a greater utilization of annual plants. (At the present time, flax straw is being burned off the fields of Canada, just as the rice straw is burned off the fields in the Sacramento valley in California.)

The New World Pulper was originally designed

by V.S. Krotov of the Pulp and Paper Research Institute of Kiev. The present promoters of this project funded complete engineering work in Ukraine, in exchange for marketing rights to the design. We have a complete set of detailed drawings, and about 1200 pages of explanatory material, translated from the Russian language.

The Plan

Our plan is to set up a pilot project, probably in Canada, using both flax and hemp, at a capacity of about 15 tons per day. Because of the low cost of our raw materials, the low operating cost of our process, and the high market value of 'tree-free' pulp and paper produced without compromising our environment with toxic waste, we expect to enjoy an enthusiastic reception from the market place, with excellent profits.

Initially, there may be some premium on our new pulp, since we will start small, and have a mature industry to compete against, but we anticipate that our motto 'Better Paper Cheaper' will very quickly become a reality, and the crazy experiment of making paper out of trees will be given up as a failure. After all, the 'paper' made from wood pulp is the poorest quality in over 2000 years of the history of papermaking! The Library of Congress recently warned that most of the volumes acquired in the last 100 years are quickly deteriorating, while the older books of an earlier age (made mostly from hemp, flax, or cotton) are still in excellent shape.

If our first project is a success, we will want to follow it up with additional projects all over the

world. We have a large file of such potential projects, where there is an interest in making paper from alternative fibers. In this way, we could quickly expand to a world-wide presence in a whole new industry of alternative fibers for the pulp and paper industry.

The Numbers

We expect to generate revenues of close to \$4 million per year per unit, with profits of at least \$1.5 million for our first year of operation. Within five years, we might have 50 or more units in operation (possibly scaled up in size), with overall profits in the range of \$100 million. The cost to get started, however, is extremely small, in comparison to the huge potential: we expect to be able to build our first mill for under \$2 million. With administrative and legal costs and contingencies, we are looking at capital requirements of around \$5 million.

Project Manager

John Stahl has been making hand made paper since the early 70s, which he has used for printing (by letterpress) and hand binding his own books. For nearly ten years, he has been experimenting extensively with alternative fibers with great interest. His desire to set up a commercial project to manufacture alternative fiber pulp led him to the discovery of this new technology, which he has been getting ready for realization.

For more information about the New World Pulper contact John Stahl at tree@tree.org or write Earth Pulp & Paper, POB 64, Leggett, CA 95585. ✿

The Silent PWC Problem: Toxic

by Pamela Prodan

Each year, through normal operation, a typical personal watercraft (PWC or jet ski) discharges between 50 and 60 gallons of unburned gasoline and oil into the aquatic environment. A 100-horsepower PWC operated for seven hours creates the same air emissions as a new automobile driven for over 100,000 miles. These are shocking numbers. Although many people complain about the irritating noise and harassing antics of these "thrill craft," few really understand the incredible toxic pollution generated by these machines. This is not just about some bothersome gasoline fumes! All two-stroke marine engines pollute the environment, but the pollution problem created by PWCs is up to eight times greater than that from conventional motorboats because the typical PWC has twice the hourly annual usage rate, double the load factor (e.g., rpm) and higher horsepower than a conventional two-stroke outboard motor. PWCs now account for about one third of all boat sales.

Inefficient Engine Design Wastes Fuel

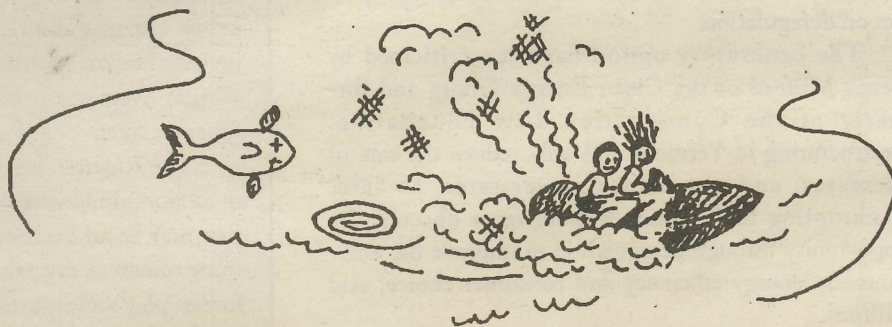
The pollution caused by PWCs and many other outboard motorboats is due to the inefficient design of the two-stroke engine, a technology that has changed little since the 1940s. Used on 75 percent of all motorized boats and PWCs in the U.S., two-stroke engines generate 1.1 billion pounds of hydrocarbon emissions each year. In addition, 25 to 30 percent of the fuel and oil used in two-stroke marine engines is simply discharged unburned, directly into the water and air. Nationally, this amounts to 15 times more oil and fuel spilled (annually) than the Exxon Valdez spilled (once). The inefficiency of the two-stroke engine design is best illustrated by the fact that simply by switching from a two-stroke to a four-stroke 90 horsepower outboard engine, the user would save more than \$2000 in fuel and oil costs over the average 16-year life of the engine.

Gasoline and Oil Mixture Kills Lake Organisms

Research conducted in the summer of 1997 by Dr. James T. Oris, professor of zoology at Miami University in Ohio, showed that low levels of emissions from motorized watercraft killed zooplankton and stunted the growth of fish larvae. To quote from an abstract of the study, "Results from these experiments provided evidence that ambient levels of exhaust components from motorized watercraft caused photo-activated toxicity to fish and zooplankton as well as direct (i.e., no-UV) toxicity to zooplankton." Dr. John Giesy of Michigan State University has also shown that two-stroke emissions released into water become up to 50,000 times more toxic under field conditions in the presence of ultraviolet light from sunlight. This means that the risk of toxicity from motorized watercraft emissions may be greatest in the clearest of lakes, where sunlight can penetrate deeply, and in shallow waters, where marine life such as fish eggs, larvae, algae and zooplankton is youngest and most vulnerable. Scientists believe that pollution affecting such aquatic organisms at the base of the food chain may bioaccumulate, poisoning much of the marine environment.

MBTE and Other Toxic Compounds

The direct discharge of fuel by two-stroke engines is also alarming because it means that large amounts of unburned MBTE (Methyl tertiary-Butyl Ether) are being discharged into lakes and waterways. MBTE is considered by many to be the most menacing of gasoline ingredients because of its long life and ability to bypass conventional water purification. However, other components of gasoline besides MBTE are toxic. Toxicity of two-stroke emissions is primarily due to the presence of polycyclic aromatic hydrocarbons (PAHs), which are substances in petrochemicals. PAHs form highly toxic and persistent compounds known to be 1) ubiquitous contaminants that bioconcentrate; 2) carcinogenic to mammals; and 3) acutely phototoxic to aquatic organisms within minutes or



hours.

California Surpasses EPA Standards

Despite claims by PWC and outboard motorboat manufacturers that the industry is now making cleaner machines, PWCs and other two-stroke watercraft will continue to pollute lakes and waterways for decades at levels that are dangerous to living organisms. While it is true that in 1998 the U.S. Environmental Protection Agency (EPA) started phasing in regulations that by 2025 will reduce marine

EPA's requirements. Under the new California regulations adopted December 10, 1998, a typical marine engine will be 70 percent cleaner by 2001 and 90 percent cleaner by 2008. According to the ARB, there are already many marine engines available on the market today that meet the ARB's regulatory levels. The ARB also adopted a labelling requirement that will identify cleaner engines to allow consumers to factor environmental considerations into their purchasing decisions and give agencies a way to identify watercraft that meet or exceed California standards.

In Maine, LURC Recommends Extending Ban (Sort Of)

In the summer of 1998, hundreds of people commented on the Maine Legislature's ban on personal watercraft (PWC) on several classes of lakes wholly or partially within Maine's unorganized townships. At four public hearings and in written comments to the Maine Land Use Regulation Commission (LURC), the public overwhelmingly supported the Legislature's PWC ban on 245 lakes in the unorganized townships (LURC jurisdiction). The ban became effective on November 1, 1998. Although the ban is a significant first step, the vast majority of lakes in Maine remain open and accessible to PWCs. There are approximately 5,860 ponds and lakes in Maine, of which 3300 are wholly or partly in LURC jurisdiction.

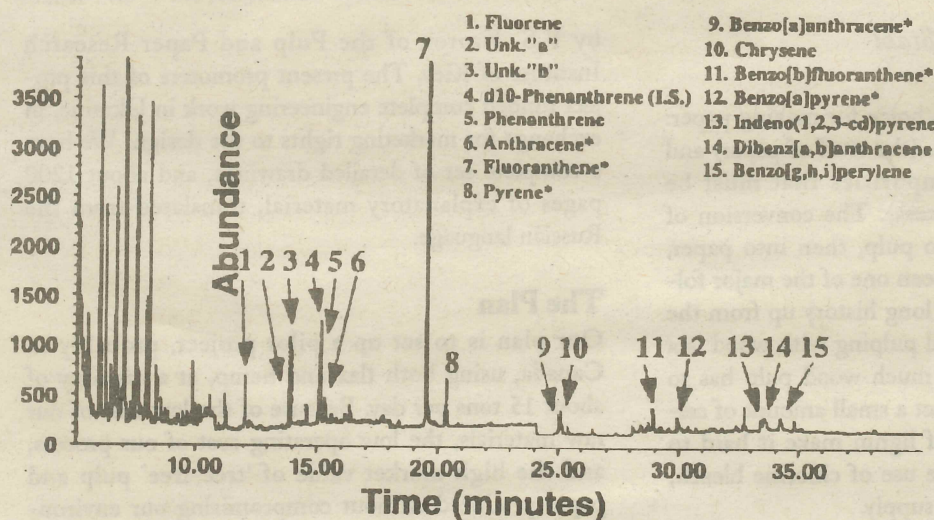
As required by the same legislation that enacted the PWC ban on certain lakes, LURC, the Bureau of Parks and Lands and the Department of Inland Fisheries and Wildlife sent a joint report to the Maine Legislature in January of 1999 with recommendations on the regulation of surface water uses in LURC jurisdiction. Among other things, the report recommends expanding the current surface use limitations by adopting "no motorized watercraft" limitations on protected rivers and additional lakes. The additional lakes are selected inaccessible and remote lakes, selected lakes within public lands and parks, and lakes within or next to Baxter State Park. In other words, lakes recommended for further limitations are

generally lakes that are already inaccessible due to geography or do not presently have PWC use. If all recommendations are implemented, 328 lakes, or just under 10 percent of the total number of lakes in LURC jurisdiction, will have restrictions. The joint report stressed the need for additional enforcement capability if there is to be any substantial expansion of surface use limitations.

Maine Report Dismisses Water Pollution Issue

In their joint report to the Maine Legislature, the

agencies charged with making recommendations dismiss the water quality problems associated with two-stroke marine engines. Oddly, the report asserts that "According to EPA, the emissions problem with 2 cycle marine engines is an air quality problem (not a water quality problem) as the ingredients of the exhaust from such engines are not water soluble," except for MTBE, which the State plans to eliminate as a fuel additive. No substantiation or documentation is cited in support of the claim that water quality problems are avoided because two-stroke exhaust is



Polycyclic Aromatic Hydrocarbons (PAHs) from motorized watercraft emissions identified in lake water. Compounds marked with an asterisk () are known phototoxins. Courtesy of J.T. Oris.*

engine emissions 75 percent, there are no requirements to modify or retrofit existing engines or watercraft. Even more troubling, the EPA regulations will take 10 years to phase in technology that is dirtier than existing four-stroke engine technology, which is already available today.

Not surprisingly, given California's notorious smog problems, the California Air Resources Board (ARB) recently found EPA's regulations to be totally inadequate and approved an accelerated timeframe that will greatly advance emissions reductions beyond

Pollution

not water soluble. The joint report also concludes that the Legislature has dealt with the issue of pollution of public drinking water supplies by increasing the distance that outboard motors need to stay away from water intake pipes on such lakes. LURC ignored a recommendation to limit all types of motorized activities on three lakes used as drinking water sources within LURC's jurisdiction. The recommendation came from the Maine Department of Human Service's Director of the Division of Health Engineering during LURC's public comment period. Documentation about MBTE and the above-mentioned toxicity study by Dr. James T. Oris was submitted to LURC during the public comment period as well.

Solutions Exist

A solution to the toxic pollution problems created by two-stroke engines can only come about by changing the whole way we think about recreational boating. Water pollution from motorized watercraft must be acknowledged and dealt with in a preventative manner. Consider the credible scientific research demonstrating the toxic effects of the discharge of gasoline and oil into lakes and ponds. Common sense says we need to try to minimize and if possible, eliminate such discharges through State adoption of stronger emission standards like California has. We also need to adopt "Sustainable Boating" policies that favor non-motorized watercraft. Two-stroke engines should be phased out as quickly as possible, but in the meantime, local governments and lake associations should strive to encourage canoeing, kayaks, rowboats and sailboats. This may mean localities adopting time-of-day and day-of-week restrictions; speed reductions for all motorboats and PWCs; horsepower limitations; and non-motorized-boating-only zones for coves, shallow areas and near wildlife habitat. Not only would these policies reduce toxic pollution, they would curtail noise and disturbances to wildlife while reducing fossil fuel consumption. Low-impact human users of lakes and ponds would enjoy their lake experiences more, too. Right now, Maine law provides for such local control, but only if a municipality acts by October 1999. The joint report to the Legislature recommends that there be a similar process for local control of surface water uses in unorganized townships, but makes no recommendation as to whether local control should continue after October 1999.

Next-Best Solutions

Are you a boater and you are not ready to give up motorized boating? There are still things you can do to prevent the unnecessary discharge of fuel and oil into lakes and waterways:

- Keep your engine tuned properly
- Don't idle unnecessarily, but turn your engine off
- Don't exceed cruising speeds, as this pollutes more
- Always refuel your watercraft out of the water
- Store your watercraft out of the water when not in use
- When you buy a new watercraft, don't buy a two-stroke

Resources

To receive a copy of the joint report to the Maine Legislature on surface water uses, call 1-800-452-8711 (in Maine) or 207-287-2631. Two resources for information on the pollution caused by two-stroke engines are the California Air Resources Board (www.arb.ca.gov) and Bluewater Network (www.earthisland.org/bw).

Pamela Prodan directs NARP's Renewable Energy Assistance Project, advocating for wildlands protection in the context of energy issues. ❀

East-West Highway

Speeding the Trip, Spoiling the Destination

by Pamela Prodan

Since the mid-1930s, the subject of east-west highway travel in Maine, northern New England and eastern Canada has received varied and sometimes intensive consideration. Right now, the City of Bangor, Maine is applying significant pressure on government officials in Canada and the U.S. to promote the building of a 4-lane, limited access highway across Maine. Bangor desperately wants to be the hub of international trade in northern New England and Atlantic Canada. On the other hand, the Regional Transportation Advisory Committee for the western Maine counties (RTAC #7) has taken a formal position against any new highway, favoring instead upgrading existing roads and bridges.

On January 1, 1999, the Maine Department of Transportation (MDOT) released the latest word on the subject: its status report on a legislatively mandated study of an east-west highway. MDOT's final report will include plans to upgrade existing east-west highways and Canada-linking highways; plans to expand highways to a 4-lane limited access roadway; and financing options.

MDOT expects most of its final report to be completed by the March 15, 1999 deadline, but the chapter on financing will probably not be finished until May at the earliest. The financial analysis will depend on the results of economic research to be completed by the State Planning Office at the end of April, 1999. Financing options will include "innovative financing," such as toll revenues and other "buy now - pay later" concepts.

Will Study Identify Issues?

Of concern about the draft report is that it lacks discussion on what impacts MDOT will examine relative to the construction of a 4-lane limited access highway. A big question is whether the MDOT study will adequately identify economic, environmental and community issues relative to a 4-lane highway. Proponents have made claims that such a highway would lure prosperity north and be the economic salvation for a region that has been ignored and allowed to die. Will the report critically examine these premises?

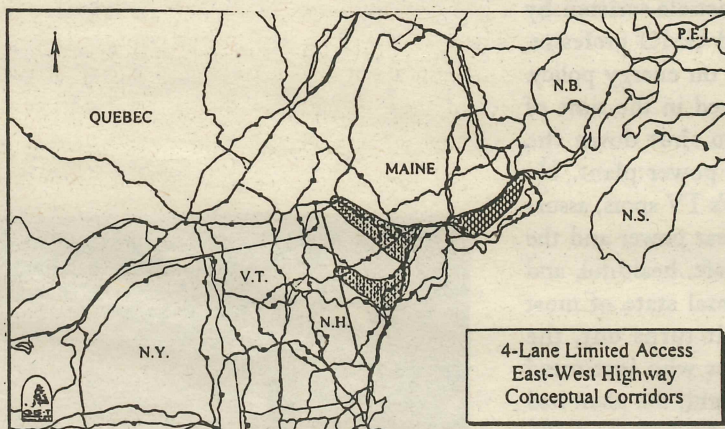
More importantly, will the report take its mandate seriously and identify negative consequences of a 4-lane highway, such as the potential to create urban sprawl and damage to local neighborhoods and communities? It would be disingenuous not to recognize sprawl as a serious economic issue. Evan Richert, director of the State Planning Office, has made it his mission to go around the state, leading group discussions on this very topic.

What about polluted air, acid rain and global warming from increased fossil fuel consumption by trucks and cars using the new 4-lane highway? Will the study's forecast of potential growth in commercial and auto traffic simply assume that past trends in traffic growth can continue unabated? Already per capita emissions of greenhouse gases from Maine are greater than every other state in New England, and Maine's per capita emissions of carbon dioxide from transportation are greater than the national average.

Will the report examine the foreign policy consequences of increased dependence on foreign oil or the potential for destruction of an extensive rail system already serving the region? A bill has been introduced into the Maine Legislature that would exempt the east-west highway from Maine's Sensible Transportation Act, which implies that maybe the

highway is not so sensible after all. Iron Road's Canadian American Railway and Bangor and Aroostook Railroad maintain a rail system that already provides a seamless east-west transportation network, and at significantly less fuel per ton of freight moved.

What about noise pollution, light pollution, damage to fragile landscapes and loss of biological diversity? The proposed highway cuts through the Boundary Mountains of Maine to Coburn Gore, through an undeveloped region that is remote, wild and nearly uninhabited. A 4-lane highway would irreversibly destroy its character. And to what destination? MDOT states in its draft report that Quebec has no plans to improve its connections



to Coburn Gore.

Sacrifice the Boundary Mountains?

This leads to the main concern here. If you really think about it, the choice of Coburn Gore as the western terminus of an east-west highway is nothing short of preposterous. One has to wonder if promoters of the 4-lane scheme have set foot west of Skowhegan, let alone in Coburn Gore. Route 27 from Kingfield to the Canadian border boasts some of the most magnificent scenery and difficult terrain in the state, called the Boundary Mountains region. The thought of a 4-lane highway on or anywhere near the existing roadway is enough to make those who know the region cringe. In fact, the absurdity of it has led most normal thinking people to conclude that the 4-lane highway is an idea that's going nowhere, so why bother getting worked up about it?

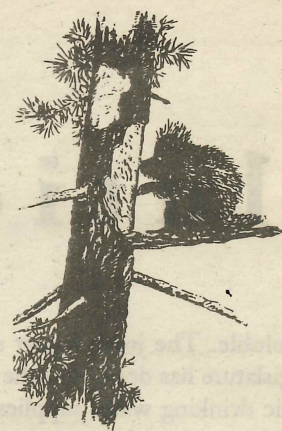
Let there be no misunderstanding about what would be lost if four lanes were blasted through to Coburn Gore. Between Kingfield and the Sugarloaf Mountain ski area, Route 27 winds up the roaring Carrabassett River, gradually revealing the spectacular peaks of the Bigelow Range. For those who don't recall, the entire Bigelow Range was purchased by the state in the 1970s for a preserve, by order of the people's referendum campaign brought to save the mountain from ski development.

From Sugarloaf Mountain, you cross the Appalachian Trail and witness the striking vistas of the Bigelow Reserve and Flagstaff Lake; and pass through Cathedral Pines, the largest old-growth red pine stand in Maine. From there you travel parallel to the Dead River, atop eskers that appeared at the end of the last ice age. This is the river route used by Benedict Arnold and his troops in 1775 en route to Quebec City. Then you meet Chain of Ponds, an necklace of seven jewel-like glacial ponds tucked among the Boundary Mountains. Sorry, no room for four lanes here.

Even if four lanes were to follow a new alignment and leave existing roads alone, imagine the road cuts on the mountains and fills in the valleys. What a blight on this peaceful landscape. If the real problem is access to Montreal, then the practical solution is to relocate to Vermont. The obvious shouldn't need to be stated, but Vermont already is closer to Montreal. And Vermont already has a 4-lane highway that has carved up the state's mountains and valleys.

If only those who rush to lay down pavement could appreciate what is already here, instead of calculating how to speedily move goods and people through it. A 4-lane highway can only bring harm to the Boundary Mountains. As astutely observed by the Maine Sporting Camp Association about the east-west highway, "while it speeds up the trip, it spoils the destination." ❀

Letter from Maine

Electricity from Wood
Sounds Great, Right?

The above question is prompted by an article written by Richard Hill, retired UMO professor, who still advises us on energy policy. Hill's exposure peaked in the time of Maine referenda to shut down the Wiscasset nuclear power plant. He appeared in industry's TV spots, assuring voters that nuclear power and the plants were cheap, safe, healthful, and no danger; the mental state of most technologists. As it turns out, the cranks and Luddites who instituted the referenda were right; the plant had internal hazards which forced the owners to junk it. As to the so called cheap electricity, we the ratepayers can't see an end to paying for the perpetual care of the radioactive wastes and components. So much for Hill's perspicacity.

Still lecturing us on energy, Hill writes in the *Ellsworth American* that neither coal nor oil but, rather, hydro and biomass will make Maine self-sustaining in electric energy. His understanding of the biomass source is that prevailing when we got onto the PURPA bandwagon—'waste' wood would supplant Arabian oil. In the '80s Maine Audubon made a TV piece, narrated by Jeff Pidot, of the AG's staff, selling biomass, but showing not a clearcut nor ruts, nor the machines that did it. Maine Forest Service was happily measuring the tons taken from such clearing—I remember one of them saying the amount was as much as forty tons to the acre. Who could obstruct this bounty? (The explicit promise was that all this cutover land would graduate to 'intensive management').

In that decade Maine had the good fortune to have the largest number, after California, of promoters of wood-fired generators. How did we get so lucky? Well, some smart hustlers who understood the PURPA act saw that they were guaranteed tax shelters, saleable, and an ungodly price for the KWH they produced, whether we needed it or no. This is the most costly electricity anyone had ever seen; the residential ratepayers paid most of it. Finally, we had to buy off some of the fifteen-or-so contracts, lump sum, cash. One, at Champion International Paper in Bucksport is 72 megawatts—the power contract worth more to Champion than the state can raise. Fueling the Champion boiler is tearing out the woods near me even now. Despite the buyouts, the industry publication (1998) lists 388 megawatt capacity from Maine installations. Like nuclear plants, we can't seem to get rid of them.

Now comes Richard Hill with an article titled *It's the Numbers that Count*. It looks like a set of calculations



Irene Butler strolls through the first clearcut over 1,000 acres in size, compliments of St. Regis, c. 1979.

that define sustainability for wood-fired generation. I recommend this exercise to anyone thinking, speaking or writing about biomass. His conclusion is that: "one kilowatt hour of electric energy per year can be sustained by 80 square feet of forest area. You may ask, 'What's wrong with that?,' as I did.

Hill started his thumbnail exercise with an assumption by the State Planning Office that we could sustain "an additional 300 to 730 megawatts of capacity", in turn, based on rose-colored projections by MFS and a study by S. D. Warren, a now-defunct paper maker that happened also to have a big wood-fired generator. He says, "Just the use of bark, branches and culls will do the trick." This is one of the simple-minded charms of the biomass scheme. In school I learned that technically, there is no free lunch. This is all the more true environmentally. Biomass mining ruins the ecosystem that is the forest.

Rather than the Planning Office numbers, I started with the recent MFS growth rate of 25 cubic feet of wood per acre annually. It is unlikely that the 'growth' on an old field or 'biomass' site exceeds this amount. You should agree that it is growth rate, and not standing volume, that decides what is sustainable.

Converting wood growth to KW-hours is straightforward calculation,

but I also passed the problem to some technical people as the question:

"If forest growth is 25/80 cord per Acre yearly, what output (KW) will an Acre sustain?"

There was a range of answers, mostly higher, which used a handbook conversion factor for heat to electricity which works only in the direction of your toaster or heating appliance. In a mechanical device (engine, turbine) the conversion factor is about three times greater. The reason is that engines, like your car, waste most of the heat supplied out through the radiator. (Maine Yankee put over 2/3 of the reactor's energy into Montsweag Bay. As someone said, nuclear fission is a hell-of-an-expensive way to boil water.)

Three of us settled on 60 watts as the sustainable output of an acre of our forest, at current growth rate. To my surprise, Hill's and the SPO's calculation give the same answer. You may be asking, "What's the argument?"

What should alarm us all is that the agreement of these calculations shows that the rate of wood consumption happens to the rate of growth. But, obviously, putting forest growth into a boiler denies its use for paper or lumber. An acre 'sustaining' electric power is not available for other wood products.

The Champion boiler-generator mentioned above is rated at 72 megawatts. Let's apply our result to it:

$$\frac{72,000,000 \text{ watts}}{60 \text{ watts/Acre}} = 1,200,000 \text{ acres}$$

That's right—over a million acres to support this boiler, not to speak of feeding a 1500-ton per-day paper mill. (If the boiler is fired only 3/4 of the time, it still takes 900,000 acres.)

The 388 megawatts the Biomass industry claims for Maine would require six million Acres, leaving little to sustain pulp, paper, lumber, or log export, and the shrinking number of jobs entailed. As to the 700 MW suggested by SPO as possible, well, you figure the area.

It's the Numbers that Count, but they don't serve up a free lunch. Cutting more than you grow is economic silvicide.

BillButler (billbtlr@mid-maine.com)
14 Feb 1999 ❀



An Irreverent Examination of Laundry and Technology

by Alexander P. Lee

I hope that this article will be taken with the seriousness that it deserves. Laugh a little, but hang out your clothes.

Technology is not bad if it improves the quality of your life. The Amish, Wendell Berry, Jerry Mander and others have been saying that, and acting on it, for years. Unfortunately, our generation—both young and old—is saddled with a profusion of instruments and systems that make our lives more complicated and frenetic. It is very easy to succumb, even to get caught up in the consumerism of our culture. The classic, almost trite, example is the computer.

I know that before I finish writing this on my Power Macintosh 7200/120, I will have had at least one SNAFU. (It is important to use military terminology here, because it is the military-industrial complex which has invented and 'perfected' much of this stuff. We should be jubilant, eh?)

I have had e-mail for only a week and already it is driving me crazy. One company that signed me up, called Working Assets™, told me that it would be \$19.95 per month. They failed to mention that I would have to dial in-state, long-distance every time I wanted to log on. I switched companies and have had a string of other irritating issues arise.

Fortunately, there is a whole humorous organization out there called the Lead Pencil Club which is trying to take on IBM, Apple, and Microsoft with yellow sticks—pointy on one end and rubbery on the other. One could liken their position to David's upon meeting Goliath. That is to say, they are righteous (if slightly self-righteous) and likely to get squashed. I believe that, like David, they shall prevail, perhaps not today, but when they find the right stone to cast.

Let us take another example: the clothes dryer. This is a seemingly benign device designed to make our lives easier. It is a convenience machine. But did you know that these beasts are responsible for five to six percent of the average residential electricity bill. In Vermont, we get two thirds of our electricity from flooding traditional Cree hunting, trapping, and burial grounds and from a nuclear plant that will soon ship its low-level waste to an impoverished Texas community. This information might cause one to pause before 'pushing the button' next time.

"Hanging out my clothes is my Zen work. I find it very relaxing," claimed one woman, who grew up in the bowels of New York City. She is, of course, not alone. She is one of a growing number of people who has discovered that her life will not be any the richer for having a machine to do what she is quite capable of doing herself. . . with some help, of course, from that great big nuclear reactor in the sky: our Sun.

Is hanging out clothes not the 'manual labor' that Peter Maurin, Dorothy Day, and founders of various religious orders have claimed to be so necessary for a

delivered the punch-line, "He would have blown up in his get away vehicle." The professor proceeded to say that we can get into a lot less mischief if we move at the speed of a Clydesdale instead of a Chevrolet. While his point is well taken, the question that I posed at the end, when all of the experts had their ten minutes, was: "Is not the modern equivalent of a horse still a horse?"

I fear that many of our best-respected environmental leaders (though certainly not all of those listed above) fall into the trap of relying too heavily on their

knowledge and ignoring their wisdom. Wisdom says, "Simpler is better. Use a horse." Knowledge forces inquisitive minds to figure out what was advantageous about a horse and to try incorporating those qualities into a machine or system. Wisdom shows that we have failed miserably at such attempts to be more ingenious than nature.

Regarding my computer difficulties, the more rational and centered of my friends have counseled that I need to be more patient and that 'everything takes time.' Indeed, I think they are on to something. Writing with a pen takes time. Hanging out your clothes takes time. Feeding and caring for a horse takes time. Earning money to buy a computer or a dryer takes time. Building mega-dams takes

time. Waiting to talk to technical support personnel at Microsoft Corp. takes time. Just how exactly should we spend our time?

Fossil fuel regeneration takes time. The healing of flooded wilderness takes time. Radioactive decay takes time, too.

Alexander Lee is a first year student at Vermont Law School. In his spare time he runs Project Laundry List from his home in Bethel, VT. This is his second contribution to the Northern Forest Forum. He is on the board of directors for the Peace & Justice Center and the Otter Creek Audubon Society.

**For the record, the SNAFU was a frightening click from the monitor whereupon it went dim momentarily before fading back to normal brightness. The other lights in my house did not flicker. ☸*



happy and just life? The work of human hands and bodies glorifies God in even the most simple of domestic tasks. Given my daily work with Project Laundry List, I am somewhat facetiously inclined to declare, "Blessed are the poor for they hang out their clothes."

When many of the gurus of the environmental establishment (Donella Meadows, Stephen Rockefeller, Amory Lovins, David Orr, William McDonough, and others) converged on Shelburne Farms in Shelburne, VT, last June for a three hour forum, Professor Orr of Oberlin College implored the six-hundred person audience to employ the "modern equivalent of the horse" in solving our ecological dilemma. This plea came after a humorous story about a call he received from an Amish friend, following the explosion in Oklahoma. The friend said simply, "An Amish man did not blow up the Federal Building." Orr, puzzled, conceded that he never suspected as much. Then the Amish man, David Kline,

The Picture of an Entire Sub-Culture . . .

GreenSpeak, newsletter of the National Hardwood Lumber Association introduces a new series "What do environmentalists want?" Matt Bennett writes, "My investigation began with The Wildlands Project (see www.wildlandsproject.org), but that led to

other areas of investigation, and those led to still others, until what has emerged is the picture of an entire sub-culture. A sub-culture that possesses certain recognizable themes, such as environmentalism, but which also embraces the lesser-known themes of environmental and social

justice, democracy, and corporate rule."

Bennett finds this disturbing, a rejection of human values driven by "fear and repulsion, not logic or compassion." He promises his readers profiles of the Dogwood Alliance, Wildlands Project, Corporate Rule, Religion and Spirituality, Recreation

and Tourism, Sustainability and Green Politics.

Although disappointed at being left out, **The Forum** hopes to profile these profiles or maybe even run them in full. We are always hopeful of overcoming false dichotomies, promoting dialogue or . . . smoking out propagandists. ☸

The Sad and Full Story of Wolf Awareness Week, 1998

Governor King Alleges Conspiracy to Shut Down Forest Industry and Eliminate Jobs

by John Glowa

In his Capitol Report column in the January issue of *The Maine Sportsman*, SAM executive director George Smith quoted Governor Angus King as saying at the recent Sportsman's Congress, "there is a conspiracy—it involves wolves, a national park, and more—and the goal is to stop harvesting trees and take away jobs."

These remarks follow by several weeks, Governor King's rescission of the proclamation declaring Maine's first Wolf Awareness Week. The rescission was sharply rebuked by many in the press. The following quotes are representative of the press response:

"By recalling a proclamation which could offend no one who wasn't already paranoid, King has called far more attention to his views on wolves than the document could have produced on its own. And what it says is not particularly reassuring: that King is bent on imposing his own views even at points where reasonable civilized people can disagree without rancor." *Maine Times* editorial, Bounty Season

"Fears fueled by half-truths are generating unnecessary controversy in the wolf debate . . ." *Kennebec Journal* editorial, Dumping of Wolf Awareness Speaks Volumes on Politics

"King took the SAM line that wolves may wipe out other, 'more highly regarded' wildlife, and SAM's George Smith added that federal efforts to protect the eastern gray wolf in Maine could lead to more restrictions on snowmobiling, trapping and such. No evidence exists for any of this . . ." *Portland Press* editorial, Governor's Action Raises Wolf Awareness in Maine

"So King wrote a letter revoking his support-in-absentia of Wolf Awareness Week. In the process, he managed to convert a non-event that nobody would have paid any attention to into a publicity agent's dream fantasy of front page stories, TV news reports and editorial commentaries across the state." Jim Brunelle in his column, Let Slip the Wolves of War

"The real problem illustrated by this latest episode of political stupidity serves to exemplify the growing extent to which the truth is becoming irrelevant in political decision-making. King has no more knowledge about wolves than I do about astrophysics, yet he feels qualified, or at least justified, mindlessly repeating the nonsense of SAM." Bill Williamson in his column, Wolves Don't Hurt Deer, Moose Herds; People Do

MWC has compiled a chronology of events surrounding Wolf Awareness Week. It reveals apparent

misinformation from the Governor's office which is consistent with Governor King's factually unsupported opposition to wolf recovery and his bizarre claims of a 'conspiracy' to shut down the Maine Woods to timber harvesting and eliminate jobs.

During the past few years, MWC has several times asked Governor King to issue a Wolf Awareness Week proclamation. None of these requests have been approved. Earlier this year, Defenders of Wildlife submitted a proposed proclamation to Governor King, and on July 14, 1998 a Wolf Awareness Week proclamation was issued which contained the signature of the Governor and the seal of the Secretary of State. On August 8, MWC president John Glowa wrote to Governor King to extend MWC's "sincere thanks and appreciation for your proclamation . . ." and to state that "we hope you will support wolf recovery in Maine . . ." (This letter somehow found its way to SAM and

being circulated in support of a position that is contrary to mine, and contrary to the policy of the state. While I recognize your interest in re-establishing wolves in Maine, I do not endorse or support any effort to re-introduce this species in Maine." On August 27, the Maine Wolf Coalition issued a press release to inform the press and public of the rescission.

A September 3 *Maine Times* article noted that the proclamation had been explained as a "staff mistake" that occurred while the Governor was away on vacation. According to King's spokesperson Dennis Bailey, "It was just in the box that said OK as opposed to the box that said 'No'." The article also stated that, "The proclamation did not come to King's attention until he saw a copy of it attached to a letter from the U.S. Fisheries and Wildlife Service from the Defenders declaring support for reintroduc-



'When the wolves are shot off, the foxes increase.'

excerpts from it were printed in the October 1998 SAM news.)

On August 10, Glowa wrote to the U.S. Fish and Wildlife Service on behalf of MWC to comment on their proposed national gray wolf recovery strategy. His letter included the statement that "There is clearly growing support for wolf recovery in the northeast." He referred to MWC's 1997 wolf attitudes survey in which 79% of respondents expressed support for wolf recovery in Maine, and "editorials from six major Maine newspapers supportive of wolves and wolf recovery." Glowa also noted that "Recently, Maine Governor Angus King issued a proclamation declaring the third week of October 1998 to be Wolf Awareness Week" and he included a copy of the proclamation. The proclamation neither contained any mention of wolf reintroduction in Maine nor did Glowa cite the proclamation as evidence of the Governor's support for reintroducing wolves to Maine.

In a letter to Defenders president Roger Schlickeisen dated August 18, King rescinded the proclamation, stating, "My staff prepared the proclamation while I was on vacation and mistakenly believed I had authorized my signature. I did not." King further stated, "I fear that the proclamation is

tion of wolves to Maine, according to Bailey."

In order to verify Bailey's alleged statement that Defenders had written a letter to the USF&WS using the proclamation as evidence of the Governor's support for wolf reintroduction to Maine, we contacted Defenders and were told they had written no such letter. On Sept. 14, we wrote to Dennis Bailey asking for a copy of the alleged letter. **We received no response to our request.**

On October 4, MWC wrote to King requesting: 1) his reason(s) for rescinding the proclamation 2) a copy of the protocol for reviewing proclamation requests 3) an explanation of why the proclamation did not meet the criteria for approval, given that he blamed its approval on "a staff mistake" and 4) that he reinstate the proclamation. With the letter, we included some eight hundred signatures collected at the Common Ground Fair from individuals requesting reinstatement of Wolf Awareness Week. **Again, we received no response to our request.**

In response to a letter from Walter Pepperman, Governor King did write on September 14, "I had no contact whatsoever with SAM or anyone associated with them in connection with my decision on the

continued on next page

Wolf Awareness

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wolf proclamation. It would be a grave mistake for any state with a forest based economy to in any way encourage the reintroduction of an endangered species—naturally occurring populations are a different situation—The ink was barely dry on the proclamation before it was being used to demonstrate my support for bringing (the word 'bringing' was crossed out) wolves in Maine."

It is unfortunate that Governor King has made the political decision to oppose wolf recovery in Maine and to use the wolf to promote his own agenda against environmentalists. It is unfortunate that Governor King is accusing wolf advocates of conspiring to take away jobs, when it is wolf advocates who are openly promoting co-existence of wolves with Maine's forest products industry and who are promoting a stronger, sustainable forest-based economy through ecotourism, in particular, wolf-related ecotourism. It is unfortunate that Governor King is deflecting the blame for the forest products industry's woes onto the wolf and wolf advocates when the real threats to jobs include cheaper Canadian labor, overcutting, increased mechanization and foreign competition. It is unfortunate that Governor King continues to parrot George Smith's unsupported concerns rather than present a fact-based case for his position. It is unfortunate that Governor King refuses to acknowledge the simple fact that there has been no evidence presented that wolf recovery in Maine will cost even a single forest products industry job.

MWC will continue to gather and disseminate the facts about wolf recovery. MWC will continue to stress that, like the Great Lakes states, Maine can have a healthy forest products industry AND wolves. MWC will continue to promote growing Maine's economy through wolf-related tourism. It's time for Governor King and Maine's Congressional delegation to put politics aside and base public policy on the facts.

You can join the Maine Wolf Coalition by sending check payment to MWC at RR2 Box 533, South China, ME 04358; individual dues are \$10; students \$5; families \$15; organizations \$50; businesses \$100. Membership brings you the MWC Newsletter and the latest news on how to join the wolf recovery effort.

You can also visit the MWC's Northeast Wolf Center at 170 Water Street in downtown Hallowell, Maine. ❀

TIME FOR DIALOGUE ON WOLVES

by John Glowa

It's time for dialogue to include all stakeholders and government officials to discuss the facts about wolves and northeast wolf recovery. We have been trying for several years to engage other stakeholders, most notably the Sportsman's Alliance of Maine, in a positive and constructive public dialogue on the wolf issue, with limited success. Perhaps the recent panel discussion (titled *Wolves—Why Maine? Can they be stopped?*) at the SAM sponsored Sportsman's Congress is an indication that this may be about to change.

Positive, constructive, and fact-based dialogue is needed if we are to understand and consider each other's concerns. After all, we live here together and share Maine's abundant beauty and natural resources. We must seek to build bridges of understanding

Maine at a public hearing on listing the lynx as a federally threatened species. During the hearing it was obvious that there was a tremendous chasm between, on one side of the issue, property rights advocates, the forest products industry and the State of Maine represented by the Department of Inland Fisheries and Wildlife; and on the other side of the issue, advocates for wildlife and the environment. The former argued against giving the lynx federal protection



A Wolf in Classic Winter Sleeping Position. Photo by Joni Soffron/ Wolf Hollow

while the latter argued for it. Both sides cited a lack of evidence of a breeding lynx population in support of their arguments. It was particularly unfortunate (given MDIF&W's legal mandate to preserve, protect, and enhance all Maine wildlife species) to see MDIF&W oppose federal protection for the lynx before the necessary track survey work to determine its status in Maine has even been completed. This political decision was regrettable.

The second incident occurred in September at the New Hampshire wolf conference. Approximately ten demonstrators claiming to be paper industry workers yelled and waved signs along the roadside at the entrance to the conference site. At least one sign read, "Wolves Would Make Us Prisoners in Our Homes." One demonstrator disrupted the conference as he argued that wolves and environmentalists would shut down the paper industry.

Representatives of the forest products industry were invited to, and did attend the conference. U.S. Fish and Wildlife biologist Ron Refsnider addressed the attendees and stated that neither land use nor timber harvesting had been negatively impacted wolf recovery in the Great Lakes states. Refsnider's remarks echoed what MWC has been saying for more than four years. Wolves and humans can co-exist. Wolves do not require wilderness. Timber harvesting and wildlife management practices that benefit prey species such as moose and deer also benefit wolves.

I recently wrote to Senators Susan Collins and Olympia Snowe asking them to organize a meeting of stakeholders and representatives of the U.S. Fish and Wildlife Service to develop a dialogue about wolf recovery. I have received no response to either request.

Within the next several months, the U.S. Fish and Wildlife Service will publish its formal proposal for wolf recovery. We anticipate that at least one public hearing will be held in the northeast. We cannot afford a debacle like that which occurred at the lynx hearing. We must not accept the politically motivated hatred that has polarized public opinion and dominated the wolf debate in the western U.S. We must continue to work to educate others and we must continue to build bridges of understanding, acceptance, cooperation and compromise. ❀



and cooperation. Two recent unfortunate incidents serve to illustrate the consequences of failing to communicate.

The first occurred several months ago in Old Town,

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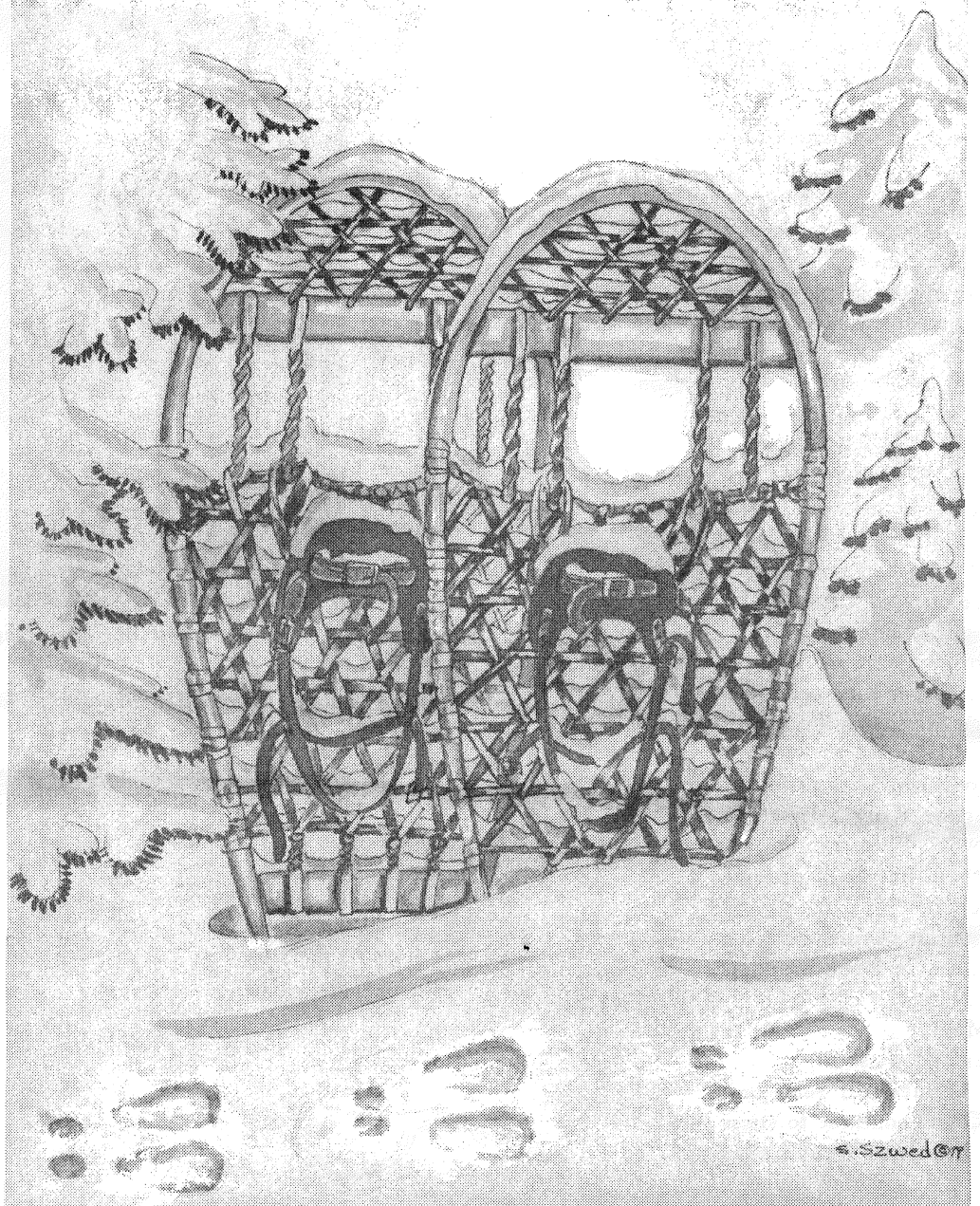
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