SAVING BIOLOGICAL DIVERSITY

In the Consumption Age

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Ecological Reserves in the Northern Forest: Citizens Must Advocate for Big Wilderness

It is worth reiterating the rationale for Wilderness as a major component in a network of regional ecological reserves.

The re-forestation of New England has allowed forest dwelling creatures such as moose and bear to re-occupy habitat lost to the extensive clearing for agriculture of the past centuries. Many of these creatures never did disappear from the parts of New England never cleared for agriculture. The Northern Forest acted as refuge and source for rewilding, but at the same time, cycles of cutting eliminated aspects of biodiversity and wilderness here as well.

Elements of biodiversity that have not returned, or are precluded by current patterns of human use, include top predators such as wolf and lynx, charismatic species like Atlantic salmon, and the structures and functions provided by stretches of forest left to natural disturbances such as wind and ice storm. Much of what we lack — in both the quantifiable and qualitative processes such as predation, seed dispersal or genetic flow across diverse ownerships and topography. Not only must we think Big, we must think Connected.

How will mega-reserves integrate with New England's rather hide-bound emphasis on the working landscape and the bundling of funds toward easements that may remove the threat of development but not accomplish the highest protections for biodiversity?

Take the North Country region of northern New Hampshire. Although this is the region of the state most suitable for large reserves of 25,000 acres or better, a decade of public involvement in land sales by timber companies has failed to establish wilderness reserves other than on high elevation state lands or in the federally-owned White Mountain National Forest and Umbagog National Wildlife Refuge. The Nash Stream Forest, and now the adjacent Champion lands sitting through semi-public hands, are the chief example of missed opportunity. Together, the lands of this considerable back country region could have been assessed in the context of a Wilderness master plan — as could lands in the Pittsburg region to the North, and Androscoggin drainage to the Northeast that are certain to come on the market.

Such an approach could integrate with visions for Wilderness based on other core areas to the west in Vermont's Northeast Kingdom, to the East in Maine's Boundary Mountains, to the South in the White Mountain National Forest. It could integrate with river-based watershed corridor reserves in the Connecticut and Androscoggin basins; and indeed proceed simultaneously throughout the Greater Laurentian biosphere. In some ways, this is already happening — but localized effort must become more unified, regional, and politically expressive.

It is apparent that top-down conservation initiatives will remain modest and fail a focus on recreational and industrial rather than ecological attributes across the Northern Forest. The only thing that will change that is a bottom-up advocacy and vision for a series of local Wilderness efforts that spread outward from existing public lands and integrate in scientifically-informed ways across the landscape.

That is what The Northern Forest Forum proposes to the region: a focus by active conservationists on the lands in their backyards and the development of a wilderness vision for them through active study and outdoor investigation. Further, these localized visions ought to merge with each other and their advocates seek to influence the course of conservation efforts at the state, regional and federal level. Maine and New Hampshire are now setting up to expend millions on land conservation. The region is seeking rejuvenation of federal Land and Water Conservation Funds. These efforts must be met by local wilderness advocates who have done their homework, networked, and taken a regional view.

We welcome your thoughts on this subject. We would like news of local plans for Wilderness and the regional networking on their behalf that is necessary for their implementation.

The Northern Forest Forum has over the years viewed sustainability of both human and natural communities in the Northern Forest, wider region and entire planet as requiring three approaches:

1) Ecological Reserves
2) Ecologically-informed forestry, agriculture and fishing
3) A society that does not out-consume its environment.

We welcome your Submissions of Material on these & Related themes.

The Restoration Project relies on your generosity and gifts of support to sustain the efforts of our activists. A subscription form is found on page 31.
Wild Forests, Fewer Roads, for our National Forests

Commentary by Jim Norris

The 380,000 MILES of logging roads that criss-cross our country's national forests amount to more than eight times the length of the interstate highway system: enough road to circle the globe fifteen times. Unbelievably, the United States Forest Service wants to build still more roads, primarily to implement its environmentally destructive, money-losing timber program. However, the President, the vast majority of Americans, and a dozen Vermont organizations believe that wild forests—not roads and clearcut mountainsides—are the legacy that should be left for future generations.

On October 13, President Clinton directed the Forest Service to "provide strong and lasting protection" for national forest roadless areas—the remaining blocks of wildland unfragmented by logging roads. In response to the President's directive, the federal agency will prepare an Environmental Impact Statement and promulgate federal regulations, both of which will be released for public comment in the spring of 2000. Conservationists across Vermont and the nation praise the President's visionary initiative.

For more than half a century our national forests have been managed primarily as storehouses for timber, minerals, livestock and other commodities. Now, on the threshold of the new millennium and as people, buildings, roads and automobiles spill across the landscape, national forests are being looked to as scarce and precious refuges from development. This fundamental shift in national priorities is long overdue.

A recent national poll indicates that more than 70 percent of Americans want to see road building, logging and other development banned on the few remaining roadless areas on the national forests. Polls conducted by the US Forest Service in Vermont and New England show even stronger results: 94 percent of the respondents support protection of all remaining roadless areas; 89 percent feel protecting fish and wildlife habitat should be the highest priority; and 72 percent favor prohibition of logging if habitats for bear or other sensitive wildlife would be harmed.

Pretreating wild, roadless areas on the national forest is the ultimate public policy no-brainer. It would not diminish the wood needed to supply Vermont loggers and mills; it would save hundreds of acres of habitat; and it would provide essential habitats for shy and sensitive wildlife; and it would provide much desired opportunities for hunting, fishing, and hiking in wild, remote settings.

Timber is not in scarce supply in Vermont. Nearly 80 percent of Vermont is forested and the vast majority of forestland is available for and capable of producing timber.

New Year's 1900
The Northern Forest Forum

APA Enforcement Overwhelmed,
Changes Recommended

(Press release of the Adirondack Council, Nov. 18, 1999)

Ray Brook, N.Y.—The Adirondack Council has written to the EPA to ask it to take what violations of state land-use laws are occurring on the six-million acre Park it oversees, and lacks both the resources and the authority to do much about them when violations are uncovered, according to a new report by the Adirondack Council.

After the Fact: The Truth About Environmental Enforcement in the Adirondack Park, details the enforcement woes at the Adirondack Park Agency—one of the smallest and most under-funded state agencies in New York. The report was compiled over the past two years from documents and interviews that included APAs own enforcement reports and permits, as well as past and current commissioners.

"The APA has only three enforcement officers to safeguard nearly 10,000 square miles of Park," said Adirondack Council executive director Timothy J. Burke. "The Agency's lack of resources, coupled with a lack of authority to take decisive action against even flagrant lawbreakers has led to a backlog of between 1,000 and 3,000 unresolved cases. Some of them date back many years. The only way to fix the problem is a substantial influx of new personnel, plus new legislation to bolster the APA enforcement program and a short-term task force from the Attorney General's office to deal with the backlog."

For example, Burke noted that the Catskill Park watershed is protected by twenty times as many enforcement officers as the Adirondack Park (60 vs. 3). The Catskill watershed enforcement team also has ten attorneys at its disposal, the APA enforcement team has none.

Keeping this small fraction of Vermont wild and free of roads would help to re-create the most original of Vermont land uses: vast, old-growth forests of which neither 'traditional' land uses were borne. Protecting these wild forests would enable future generations to hunt, fish, hike and experience the pristine conditions that greeted the first European settlers in Vermont. At a time when tracts, three-car garages, and new access roads are popping up everywhere, re-creating a few contiguous speckles of Vermont's original forests makes good sense. Let's support the President's initiative.

Jim Norris is Executive Director of the Far Worth, a 2000-acre environment-mental organization based in Montpelier, VT.

For more information, please contact: APA's own enforcement reports and information about the report should contact the Adirondack Council's Albany office at 342 Hamilton Street, Albany, NY 12210, or by calling 518-432-1770, or by e-mail at DIC@earthlink.net

Forest Watch address: 10 Langdon Street, Montpelier, VT 05602 (802) 223-2316 (FAX) 223-1363 66 Maple Street, Bristol, VT 05443 (802) 455-4063 www.forestwatch.org

NOTE: On December 15, the US Forest Service held an evening hearing in Rutland, VT on the proposed roadless area rule changes. By Forest Watch's count, 37 speakers supported such changes and 13 opposed, with a strong contingent of more supporters in the audience of 200. Many of the speakers advocated roadless protections in areas of 10,000 acres, beyond the 5000 acre threshold proposed by the Clinton administration.

A similar hearing in northern New Hampshire yielded but one testimony in support of roadless area protections, and numerous opposition to any diminution of the 1980 National Forest Management Act.

Presidential politics has also immersed the APA, with Gore/Bradley supporting it despite numerous opposition to any diminution of the Adirondack Park Program. The APA is the seventh most under-funded state agency in the country, and Gore/Bradley's efforts to support it despite Democratic Governor Jean Shaheen's opposition.

Overwhelmed, Changes Recommended

Scientific studies reveal that the loss of large blocks of wild, unlogged forest is contributing to the loss and population decline of many wildlife species. For example, warblers and other neotropical migrant songbirds are disappearing at alarming rates because of increased predation and competition near the 'edge' habitats created by roads and clearcuts.

The Green Mountain NF offers the best place in Vermont to provide large, wild areas for recreation and wildlife. Computer analysis of US Forest Service data by the National Wildlife Federation reveals that the Green Mountain NF has more than 6,000 miles of permanent roads within its purchase boundary, and at least eighteen roadless areas of 1,000 acres or more in size. These eighteen areas cover about 140,000 acres—a little more than one-third of the total national forest. Permanent closure of infrequently used logging roads could expand the size, sometimes significantly, of most of these wild forest areas.

Seven of the eighteen roadless areas are permanently protected from future roadbuilding and logging. The remaining eleven areas do not have any long-term protection of their wild, roadless conditions. They range in size from 1,000 acres to 19,000 acres, and cover a total of 60,000 acres—16 percent of the Green Mountain NF or one percent of Vermont.

Keeping this small fraction of Vermont wild and free of roads would help to re-create the most original of Vermont land uses: vast, old-growth forests of which neither 'traditional' land uses were born. Protecting these wild forests would enable future generations to hunt, fish, hike and experience the pristine conditions that greeted the first European settlers in Vermont. At a time when tracts, three-car garages, and new access roads are popping up everywhere, re-creating a few contiguous speckles of Vermont's original forests makes good sense. Let's support the President's initiative.

Jim Norris is Executive Director of Forest Watch, a 2000-acre environmental organization based in Montpelier, VT.
ARE LANDOWNERS WINDING DOWN THE SALVAGE CUTTING OF MAINE FOREST SERVICE, THE PERCENTAGE WITH AVERAGE REMOVALS PER ACRE STAYING DECLINED. CUTTING HAS NOT BEEN SUSPENDED OR ABSENT LIGHTER TOUCH ON THE LAND.

According to statistics from the Maine Forest Service, the percentage of cuts that are clearcuts has gone down from 45% in 1989 to 6% in 1998 (see chart 1). One way of interpreting this is that landowners have been winding down the salvage cutting of spruce and fir in the wake of a major spruce budworm outbreak that ended in 1985. Also during the 1990s, there have been repeated attempts to regulate clearcuts. Landowners have gotten the message that they have to clearcut less. Finally, landowners are aware that past cutting was too heavy—many claim to have adjusted their cut levels to sustainable levels. Indeed, many of the big landowners have signed on to the Sustainable Forestry Initiative. Considering this, one might assume that hardwoods are being overcut. So the acreage of selective cuts went up and the percentage of clearcuts went down even further.

VOLUME PER ACRE

Because these classifications can be misleading, I decided to check the average volume per acre removal. Unfortunately, acreage earlier in the decade was underreported. Large landowners who did report tended to clearcut more than smaller landowners, so volume removals per acre earlier in the century tend to be a little higher. Despite this, the evidence from MFS statistics does not show any major drop in the average intensity of cutting—notwithstanding the incredible drop in acreage and percentage of clearcuts. (see chart 2)

Figures from the US Forest Service inventory show that 47% of the acres cut 1982-1995 removed more than 60% of the standing volume. A Maine Forest Service report of cutting 1991-1993 showed that the average cut (including clearcuts and overstory removals) removed around half of the standing volume, which is slightly less than the US Forest Service figures. While it is possible that cutting intensity dropped slightly from the ’80s to the early ’90s, it seems to have been fairly stable since then.

Volume per acre removals are not the whole story. If cutting cycles are long enough, stands can recover volume on a regional basis. With only one cut, both acreage cut and volume removed are increasing. (see chart 3). Around 1/30 of the forest is being cut each year. At this rate of cutting, inventories are going to decline, unless growth rates increase markedly.

CHANGES BY SPECIES TYPE

State figures show that there have been some dramatic changes in the levels of cut of spruce-fir pulp (down) and spruce-fir sawlogs (up). These trends have, to some extent, canceled each other out. While there was heavy salvage of spruce-fir during the late 70s through the ‘80s, total spruce-fir cut has been fairly constant during the 90s (see chart 4). Since there is a deficiency of poletimber to replace the heavy cutting of spruce-fir sawtimber, the trend in increase in cut of spruce-fir sawtimber cannot be sustained. This overcutting of spruce-fir sawtimber is not bringing commensurate value-added benefit to Maine. In 1997, 47% of all the spruce-fir sawtimber cut in the state was exported unprocessed out of state, mostly to Quebec.

Hardwood pulpwood cut has gone way up so that, starting in 1993, total hardwood cut has, for the first time, exceeded total spruce-fir. Since the average cut of hardwoods was close to growth from 1982-1989 and since the cut of hardwood pulp has gone up dramatically since 1993, it is quite possible that hardwoods are being overcut statewide now. Even during the 1982-1992 inventory period, in Franklin, Somerset, and Piscataquis Counties, cut of hardwoods was already greater than growth.

CONCLUSION

The figures indicating less clearcutting are no grounds for complacency. The evidence from Maine Forest Service annual reports are grounds for concern that both spruce-fir and hardwoods are being overcut. At a time when paper companies are selling off millions of acres and, in some cases, selling off mills or shutting down machines, this heavy cutting is eroding out an unfortunate message to the public.

Some landowners might argue that growth during the inventory period was very low because of the spruce budworm, and that they are actually cutting at a reasonable rate, because growth rates are recovering. They may even argue that their intensive management (herbicide spraying, precommercial thinning, and plantations) is going to lead to major future growth. This argument does not work with

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Salmon Feeding Frenzy
Governor King Declares Endangered Species Act an Atomic Threat to Economic Development

King bashes enviro groups on enemies list; lashes out at salmon restoration efforts in pre-Christmas, ex cathedra proclamation

HUNDREDS of THOUSANDS of wild Atlantic salmon used to return to the rivers of New England annually to spawn. By the 1990s, development and overfishing had reduced the numbers to a trickle. In 1993, RESTORE: The Northern Woods petitioned to have salmon protected under the federal Endangered Species Act throughout their historic range. The federal agencies dragged their feet for years while the number of fish continued to dwindle. Then they proposed to list salmon in seven eastern Maine rivers. That proposal was dropped two years ago after the King Administration cobbled together a state salmon "conservation" plan.

In October, 1999, the proposal to list the salmon as endangered was reinstated. What happened? It became clear that the state plan was failing to stem the decline in the species. Fewer than 30 salmon were counted in 1999 in the seven rivers covered by the plan. Plus two new salmon viruses showed up. Plus continuing expansion of the aquaculture industry increased pressure on wild fish stocks. Plus a coalition of conservation groups sued over the failure to list salmon under the ESA. As one state biologist in Maine admitted last summer, "We have some populations that are pretty damned close to extinction."

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Overriding the state's own biological experts, Governor King now is threatening to sue to stop ESA listing, which he claims would be "a devast­ ing economic blow." He cites no hard evidence for that contention and he calls the ESA "the atomic bomb of environmental laws." Brock Evans, executive director of the national Endangered Species Coalition says, "If elected officials and business leaders in Maine want to be constructive they can make sure that listing the salmon as endangered results in an improved federal-state-private partnership. I hope they do not sue or try to be obstructive. All that would do is escalate the politics, needlessly prolong the debate, and waste taxpayers money."

WHAT YOU CAN DO—Speak at a public hearing in Machias, Maine, on January 29 or in Rockland, Maine, on February 2. Send written comments supporting ESA listing of Atlantic salmon before February 29 to USFWS, 360 Westgate Center Drive, Hadley, MA 01035

Jyn St. Pierre, Maine Director RESTORE: The Northern Woods 9 Union Street Hallowell, ME 04347 (207) 626-5635 tel (207) 626-7944 fax jyn@restore.org www.restore.org

Is Cutting Lighter? continued . . .

Assurances that landowners will voluntarily restrain overcutting are starting to sound hollow to many people. After all, level of cut has always been voluntary. My analysis of the situation is conservative. My data ends in 1997 or 1998, but since then, there have been major land sales. Some of the non-industrial landowners may be cutting very heavily to pay off debts. The situation is probably worse that my figures suggest.

NH Land Commission Issues its Final Report; Ecological Reserve Report Mentioned - Barely

THE NEW HAMPSHIRE Land and Community Heritage Commission issued its final report in December, calling for a permanently funded state program to work closely with private entities to protect the state's historic and natural heritage.

The level of funding called for is a modest $12 million from general revenues. The report makes further recommendations however for full funding of the federal Land and Water Conservation Fund's state-side program, which has not been funded since 1994. It also calls for funding of the federal Forest Legacy Program at $25 million annually. This program has paid for numerous conservation easements on Northern Forest timberlands. The Commission also endorsed full federal funding of the Historic Preservation Fund, Urban Parks and Restoration Program, and Farmland Protection Fund.

The report makes only oblique reference to the work of New Hampshire's Ecological Reserves Steering Committee, which has been dormant for a year. The Committee has recommended a series of steps to save the Granite State's biodiversity, chiefly that of "designing and establishing an integrated and comprehensive set of reserves that incorporate principles of [ecological] reserve design." Its recommendations for protecting large blocks of unfragmented forest note that the greatest opportunity for doing so occur in the northern reaches of the state and that the minimum viable size for such reserves from an ecological perspective is 25,000 acres.

Both reports, as well as other studies recently released, have highlighted the impact of development on New Hampshire, particularly in the southern part of the state. The Committee’s report does make note of the Ecological Reserve Project finding of low levels of protection for biodiversity. Public concern over less of open space and other similar threats, and support for protection, were noted to be very strong.

In emphasizing a public-private partnership, however, the report gives some warning to advocates of an ecological reserve system that would include unmanaged forest lands in viable size and adequate representation across the landscape. Other disturbing signals include mention of the Ecological Reserve's findings without reference to the recommended course of action. A reserve system does not make it onto the Commission's list of public assets worthy of protection. Combined with New Hampshire's institutional preferences for working forest, these signs could point to future bias in the expenditure of public funds — if the public fails to articulate support for a reserve system that includes large forested preserves.

Nova Scotia Group Calls for Reserves on Crown Lands

A CITIZEN'S FOREST advocacy group in Nova Scotia has proposed that the provincial government protect a 16,000 hectare tract of Crown land, reserving it from logging and roads. The land is currently under lease to Kimberly Clark and was formerly managed by Scott Paper.

Eastern Shore Forest Watch proposes a Ship Harbour Long Lake Wilderness Corridor between two existing wilderness areas, White Lake and Tangier-Grand Lake, all on Nova Scotia's East Coast. The Wilderness Corridor would have the goal of retaining and restoring native forest as well as protecting Atlantic salmon habitat in the Musquodoboit River. The reserve would provide "excellent" representation of the Central Quartare Hills and Plains community type as well as including four others.

The group believes that remnant forest, including old stands of red spruce, white pine and yellow birch will be secure if not protected under the provincial Wilderness Areas Protection Act. It urges that letters of support be mailed to Premier Dr. John Hamm, POB 726, Halifax, NS B3J 2T3 or emailed: premier@gov.ns.ca

For further information, visit the websites of Eastern Shore Forest Watch: www3.n.ssympatico.ca/ashley

Chart IV

AN EARLIER VERSION OF THIS ARTICLE IN P 7 & 8 OF THE NORTHERN FOREST FORUM OMITTED MOST OF THE TEXT.

The Northern Forest Forum

New Year's 1900

Distinctive pink salmon are rare nowadays. Unlike the hordes of salmon returning to the rivers to spawn, not many people notice the pink salmon's return. But those who do are starting to wonder if they are seeing a species on its way out. Would you say that the salmon's return was better or worse than your expectations? Do you think the salmon restoration will continue or be cut back in the future? Are you concerned about the pink salmon's future?
Landowners and contractors do not pay loggers more because they don’t have to

In response to border closings and other protests from Maine loggers from the St. John River valley area, the US Department of Labor spent $100,000 to do a study of the problem. The result, released in November, is a 250 page document by Pan Atlantic Consultants and the Irland Group. This study concluded that the bonded Canadian logger program is not depressing wages in the state or taking away jobs from Maine workers. These conclusions do not bring solace to unemployed woodworkers in northern Maine. I expected to find some useful information in a study of this size, and I did. The study confirmed that logger wages are depressed in northern Maine. The study’s central thesis for explaining this fact is not all that flattering to the timber industry. The writers contend that due to concentration of ownership and geographic isolation, the market for labor is “imperfect.” The technical term for this imperfection is a monopsony or oligopoly, where there is just one or a few buyers who can control prices. This is similar to monopolies and oligopolies where one or a few sellers can control prices. The study showed that logging contractors and loggers have little or no bargaining power, with the buy­ers of wood—big landowners and big mills. In some cases, vertical integration of landowner with mills makes the problems worse. The geographic isolation and low population means there are few alternative jobs. In logging, wages are depressed throughout all economic and geographic situation due to the cost of the wood and on the cost of paper or lumber. In fact, they did not. Apparently, higher wages are not an option to be considered.

Ironically, some loggers from the Allagash area have traveled hours from home to get higher-paying logging jobs in Quebec. Expecting a lot of these jobs because the jobs offered locally (within 40 miles) were taken by Canadians. The region may be remote to the researchers of the study, but it is an obvious example of circular reasoning. Americans don’t want to be loggers because wages are too low. Canadians, however, are not only claimed that, due to mechanization, the number of bonded Canadian workers has gone down, yet this has not led to an improvement of wages for American loggers. Thus, the study did not have a lack of differentiation by loggers. The Canadian loggers will not help Americans. Indeed, they argue, getting rid of the bond program could get rid of the minimum wages set by the government. Wages could fall. If wages went up, mechanization would increase and jobs would be lost. Unfortunately, the authors neglect their own data that show that the ratio of bonds to American loggers has actually gone up from 19 to 1 in 1975 to 27 to 1 in 1998. Canadians still have some leverage over wages. The authors also assume that nothing will be done to add to the imbalance of power between loggers and landowners. Thus they end up arguing that it is in American loggers’ best interest to invite Canadian loggers to work at low wages in Maine. I’m sure the Allagash loggers are grateful for such advice.

The authors dismiss issues concerning possible advantages of Canadian labor such as exchange rate, socialized medicine, or subsidized equipment. To do this they use either argument, or citation of opinions of consultants, rather than collection of actual data. They even suggest that Americans can take advantage of the exchange rate and shop in Canada. The authors declared that “We are not perceiving this as a major problem but seeing these as matters of fairness, nor is it evident to us that their existence has had more than a marginal effect on logging labor markets in northern Maine, whose workers are in a tight grip of all economic and geographic situation in the region.” Once again, what can be seen as a contributing factor is dismissed because it is not a causative figure might be. The authors should also have analyzed what the impact of various increases in wages might be on the cost of the wood and on the cost of paper or lumber, but they did not. Apparently, higher wages are not an option to be considered.

DUBIOUS SCHOLARSHIP

One of the first places I look at in a study of this magnitude is the list of references. Having written on the subject, I am aware of some of the key literature on the topic. Unfortunately, the key literature was not listed. In 1977, for example, Senator William Hathaway chaired a hearing of the Committee of Human Resources of the US Congress on Canadian Labor in the Maine Woods. This led to a transcript full of studies and testi­monies on the subject. For an example of some of the interesting dialogues from the transcript, see the side bar. The study also did not look at the work of Bowdoin economist David Vail, who wrote several papers comparing labor and technology in the Maine woods and in Sweden. Had the study looked at Vail’s work, they would have seen that woods labor can be well trained and well paid, with high community status.

The study did not have a reference to The Paper Plantation, by William Osborne. This was the major critique of the timber industry in Maine until Beyond the Beauty Strip (which is also not referenced) was published in 1992. The books give comprehensive critiques of industrial forestry in Maine and show how the bond program fits into the picture.

The study does have a reference to "Nader, Ralph. Chapter IV: Pulpwood Peonage. Mid-1970s." I defy anyone to find that in a library. In 1992, the Maine Times did have an article by a similar name, "Pulpwood Peonage: Loggers are the Last Indentured Workers," but I do not think the authors of the study read that document. The study was probably referring to Osborne’s book, but the authors did not bother to look up the proper citation. One expects more for $100,000.

UNRELIABLE GOVERNMENT DATA

The study used government data on employment, harvest, and other subjects. Unfortunately, this data has limited worth. This data is often unreliable (due to method of collection) or inaccurate. Many of the recommendations at the end of the study were to government agencies to improve data collection to make it more reliable. For example, in reporting government figures on wages, the authors who are self employed “contractors” do not exist statistically on wage or employment surveys.

The study is about loggers. The authors, using various sources, could only guess at the number of loggers in Maine. Besides using different methods to count loggers, agencies sometimes use different definitions of what a “logger” is. Is a contractor a logger? Is a heavy equipment operator a logger? Depending on the answer, logger wage estimates can vary widely. Some of the data used in the study had a lack of differentiation by category. To accurately compare statistics on loggers, we need to be able to compare type of equipment (mechanized vs. non-mechanized), type of operation (wage vs. piece-rate), and type of relationship (employee vs. self-employed contractor). We also need to know where the loggers are from. Without such differentiation, the results are an argument through statistical distillation.

The piece-rate cutter in northern Maine, for example, could be told there is no depression of wages to the average worker (of all types) in the entire state.

FLAWED INTERVIEWS

To supplement the available government data, the Pan Atlantic Consultants did a series of interviews with loggers, contractors, and landowners. From these limited interviews, the authors published the results, as if they were true “random” surveys that represented the whole. But it is not clear that this is the case with loggers. In publishing the results, the reader could not know more precisely which type of logger expresses which type of opinion, where.

The study gives comprehensive critiques of the timber industry. The study concludes, getting rid of the bond program and mechanization would increase and jobs would be lost. Unfortunately, the authors neglect their own data that show that the ratio of bonds to American loggers has actually gone up from 19 to 1 in 1975 to 27 to 1 in 1998. Canadians still have some leverage over wages. The authors also assume that nothing will be done to add to the imbalance of power between loggers and landowners. Thus they end up arguing that it is in American loggers’ best interest to invite Canadian loggers to work at low wages in Maine. I’m sure the Allagash loggers are grateful for such advice.

The authors dismiss issues concerning possible advantages of Canadian labor such as exchange rate, socialized medicine, or subsidized equipment. To do this they use either argument, or citation of opinions of consultants, rather than collection of actual data. They even suggest that Americans can take advantage of the exchange rate and shop in Canada. The authors declared that “We are not perceiving this as a major problem but seeing these as matters of fairness, nor is it evident to us that their existence has had more than a marginal effect on logging labor markets in northern Maine, whose workers are in a tight grip of all economic and geographic situation in the region.” Once again, what can be seen as a contributing factor is dismissed because it is not a causative
factor. The authors admit that there may be an impact to some loggers in a few regions (such as the St. John River valley where the protesting loggers live), but do not explain how an adverse impact could translate into there not being an adverse impact to Americans. Instead they trivialize these impacts as being only around $13 million in wages in an economy worth billions. This figure assumes all the bonds are loggers working at the "average" wage. A certain proportion of bonds are actually truck drivers, heavy equipment operators, engineers, machinists, cooks, book keepers, and logging supervisors. Thus, the economic impact could be greater. The study, surprisingly, made no mention of the range of jobs tied to bonds. There are also secondary costs as communities decline.

The authors say, on the one hand, that because of mechanization, there will be a major loss of jobs. One would assume this would mean a surplus of displaced workers. Yet on the other hand, they argue that there is a shortage of workers, and that the shortfall needs to be filled by Canadians. Some Americans can't be found. They do not explore what has happened to the displaced loggers. Why did they leave?

The authors missed the obvious conclusions from their own premises. Jobs are disappear­ ing. The forest is being overcut. Loggers have no power to negotiate higher wages. The work is hard, seasonal, with lots of commuting. Incomes are low, and companies have avoided paying wages, benefits, or insurance by calling the workers independent contractors, rather than employees. So loggers leave or tell their children not to get into logging. The conclusion of the researchers should have been that these conditions are unacceptable in a civilized society. One only needs to look at the example of Sweden to see a society where loggers have better training, better pay, and higher status. It can be done.

Wrong Question

The study brings little comfort to unemployed or underpaid loggers because it tries to answer the wrong question. The study tried to find out if the Department of Labor is adminis­ tering the bond program within the law — i.e., is there a adverse effect on American workers from the employment of bonded Canadian loggers. The authors did not look into the exportation of raw sawn wood to Quebec. They did not look at the import of Mexican labor to plant trees and thin brush. They did not look at the causes of declining rural communities.

The authors would like to see a minimum hourly wage even if a worker is paid on a piece rate. The authors could have gone a little farther. They make the case that the relationships between landowners and loggers are often very stable. "We do not recognize, however, that what they are describing should be an employer-employee relationship with stable wages, benefits, insurance, workers' compensation, vacations, and ability to organize. Paper mill workers have these benefits, loggers don't. The big landowners have gotten rid of such headaches by declaring that their workers are contractors, not employees.

The large landowners are being penny wise and dollar foolish by using their political might to wrest a few dollars an hour from the local Maine loggers. The landowners put the squeeze on contractors who put the squeeze on their workers. From 1973 to 1997, work productivity, according to the study, has gone up 74.4%, but real wages have declined 31.8%. The landowners are thus saving money, but not passing the savings on to the workers.

Perhaps the most telling statistic from the study is the result of a question to employers: "Would you increase wages 10% to alleviate the shortfall of workers?" Seventy percent said no and 12% were unsure. Landowners and contractors do not pay more because they don't have to. The government is backing them up by allowing bonds who will work at lower wages. This program can thus be seen as a subsidy which further distorts an imperfect market.

If the large landowners want their workers to be well managed, they need to pay the loggers to take the time to take care. Loggers away from getting survival wages do not have the incentive to take care. To buy cheap wood for their mills, companies have cheap­ ened the labor and cheapened the for­ est. The degraded forests and commun­ ities that result are a cost the public will have to pay for one way or anoth­ er.

Although the study very shly pre­ sent the power imbalance of poor log­ gers versus big landowners in geo­ graphically isolated regions, it gives the loggers little aid or comfort. The only way for loggers to address the imbalance is to organize. Unfortunately, in an age when workers are dependent on expensive machines that must be kept in production, to pay off debts, this is not an easy thing to do. As Bill Butler quipped in my book, "You only travel,20-40 minutes and stay at camps all week. Previous to the boycott we only traveled 20-30 minutes. Canadians are subdi­ sribed when they buy equipment, and because of the exchange rate and health care situation they are cheaper to hire. Irving has taken over, they set the low prices and the competition will follow." The State of Maine needs to protect its people. Logging will never be the same.

Rangefley Lakes Area Logger Photo © John McKeeTh

From the April 14th, 1977, Congressional hearing on Canadian Labor in the Maine Woods

The following dialogue occurred after George Carlisle, of Precision and Carlisle stated that Maine loggers avoid the work because of the distance and isolation, and that there was a need to hire Canadians:

SENATOR HATHAWAY: "You mentioned the fact that Americans don't like to go into the woods. Yet for some reason, a lot of Americans have gone all the way to Alaska to work on the pipeline up there. So it seems to me that it may be just a question of money. It may be a question of living conditions also . . . But don't you agree that if you just paid them enough you could get all the Americans you needed?"

DAVID CARLISLE: "I presume that to be true."

From the EMC/Elwood Group report for the DOL. The following, from page 229 of the report, is an exam­ ple of sloppy copy editing for which we should all be grateful. In this quote from an inter­view with a company name was uninten­ tionally left in:

"When X purchased Y, we didn't have any negotia­tions. We were offered a 30% decrease from what we had made with Y for the past 20 years. There wasn't a sec­ ond offer, it was basically "take it or leave it." We believed this was done so that they could hire Canadian labor. We had a perfect record for 35 years. We never fell short of filling our contracts. Now we have to travel 2 hours and 40 minutes and stay at camps all week. Previous to the boycott we only traveled 20-30 minutes. Canadians are subdi­ sribed when they buy equipment, and because of the exchange rate and health care situation they are cheaper to hire. Irving has taken over, they set the low prices and the competition will follow. The State of Maine needs to protect its people. Logging will never be the same."

T E S T Y O U R R E A D I N G

C O M P R E H E N S I O N

S E E E C O N O M I C S Q U I Z O N P A G E 3 0

A M U L T I P L E C H O I C E T E S T

O F Y O U R K N O W L E D G E A N D

T H E C R A Z Y L O G I C

O F W O R K I N G A S A L O G G E R I N

M A I N E.
**NEW YORK ACTS DECISIVELY AGAINST ACID RAIN**

**NEW YORK Governor George Pataki** acted twice this fall to position New York to do all it can to unilaterally combat acid rain. To truly advance the fight against acid rain, New York must point a finger inward before it can point out Midwest ways. On October 14, 1999, Governor Pataki ordered the New York State Department of Environmental Conservation to use its rule making authority to cut sulfur dioxide and nitrogen oxide emissions from utilities based in the state. Once the new rules are officially phased in between 2000 and 2007, sulfur dioxide will be reduced from 260,000 tons annually to 16,000 tons; nitrogen oxide will be reduced from 93,000 tons annually to 16,000 tons. Mercury levels will also be reduced.

These reductions will bring relief to the Adirondacks, where scientists calculate that 20 percent of all acid rain stems from short-range transport. States upwind of New York, such as Vermont and New Hampshire, should see even greater relief. Several peaks in central Vermont are renowned for extremely high mercury levels.

Pataki's second action was to order that New York State adopt the California Clean Air standards for automobile emissions. This has long been a cry of clean air advocates across the state. The Governor announced this program would start on January 1, 2004. Then all cars sold in New York will be required to meet new clean air regulations. Massachusetts was quick to add that it would follow New York's lead. The sheer power of the marketplace in New York and California will drive nationwide changes to vastly improve air quality emissions for automobiles. Fully 25 percent of all new cars sold in the U.S. are purchased in New York and California.

The Governor's actions followed New York Attorney General Eliot Spitzer's announcement that on September 17, 1999 that he has served notice of an intent to bring suit against the owners of 17 coal-fired power plants in the Midwest for alleged violations of the 1990 Clean Air Act. Spitzer alleges that these power plants have routinely violated the grandfather clause in the Act, that allowed them to continue to operate at current levels and perform routine maintenance. Spitzer's staff found that all of these plants have significantly increased the wattage produced by upgrading and expanding capacity all the while continuing to use coal. 11 of the 17 power plants named in the suit are owned by American Electric Power of Columbus.

The companies were quick to counter-punch that New Yorkers and only New Yorkers are responsible for poor air quality and acid rain. They pointed to clogged highways around New York City, high truck traffic, and the plans to sue several New York power plants for the same alleged violations of the Clean Air Act. There are three coal-fired power plants operating in New York.

Eliot Spitzer routinely refers to the AG's office as a "public advocacy law clinic." Spitzer has put together one of the most formidable environmental legal staffs in the U.S. He tapped Peter Lehner, former NRDC lawyer, and long-time NYPIRG leader Judith Enck, to head up his environmental division. Spitzer also recently announced that he is moving against General Electric to recoup damages for
c的概念Mercury levels in fish (see chart), and forest regeneration failure in many parts of the Adirondacks alarming landowners and foresters alike.

**New Adirondack Employment Data Released**

A new jobs study of the Adirondack Park was recently released. Researched by the Department of Labors Adirondack bureau led by Alan Beidick, this report looked at trends between 1992 and 1997. This study is the first of its kind, and looks at job data between 1985 and 1992 published jointly by the Department of Labor and the Nelson A. Rockefeller Institute of Government. The report found that the Adirondack Park experienced job growth at a rate faster than either the state or national average during the same years. The Beidick studies are noteworthy because they are the first to look at data from within the Park and since most economic data is tracked on the county level, these reports necessitate a lot of special research and effort.

![The Northern Forest Forum](image)
The Adirondacks has six prisons, larger than other parts of New York: Adirondack Park, $23,224; Upstate school district and well-staffed town and county governments. The average mental health facilities, numerous mental sector ranked second in growth. New York, $28,710; $U.S. average, Downstate New York, $44,583.

Comparisons with the national averages for the mix of jobs predictably found them to be more likely to select government jobs in the Adirondacks (31.5% compared with a U.S. average of 15.6%), less manufacturing (Adirondacks: 9.3%, U.S.: 15.4%), wholesale trade (Adirondacks: 19.7%, U.S.: 23.6%) and services (Adirondacks: 29.0%, U.S.: 27.8%) were close. Total payrolls figures were lopsided. For example government (Adirondacks: 40.5%, U.S.: 16.4%) and manufacturing (Adirondacks: 13.8%, U.S.: 19.5%) showed an imbalance. Other areas were closer, such as services (Adirondacks: 22.0%, U.S.: 26.1%) and trade (Adirondacks: 12.1%, U.S.: 16.0%). This reinforces previous studies that show a reliance on government employment, the tourist economy and small businesses.

One major failing of this report is that it misses thousands of legitimate jobs, an area of perhaps the largest job growth in the Adirondacks: self-employed people. These folks work off their social security numbers and are not tracked by the Department of Labor. They're not covered by unemployment insurance, and again not tracked by the Department of Labor. The self-employed, independent, non-incorporated consultants, crafts people, freelancers in many of these professions represent thousands across the Adirondacks.

### CLASSIFICATIONS OF WHITNEY AND WATSON'S EAST TRIANGLE

Classification hearings were held by the Adirondack Park Agency (APA) on proposed classification for some 60,000 acres of Forest Preserve lands in the East Triangle. These include the new 15,000-acre Little Tupper Lake tract, reclassification of the 7,500-acre Lake Lila tract, classification of the 23,000-acre Watson's East Triangle tract, and 12,000 acres of Wild Forest lands bordering the Watson's lands and the 2,100-acre Alice Brook tract.

The public hearings went extremely well for wilderness advocates. Four hearings were complete routes where a total of 150 speakers spoke in favor of wilderness and only a handful against. Two others in the far reaches of the Adirondacks were closer, but just one had more opponents of wilderness speak. The public written comments followed a similar pattern. On the subject of the Little Tupper Lake Classification, over 1,000 letter writers called for wilderness, whereas less than 100 called for a lesser classification. This was the same pattern for comments about the Lake Lila reclassification, the overwhelming majority believe that this tract should be reclassified as wilderness and combined with the Little Tupper Lake tract.

The APA also brought forth a proposal for the reclassification of 2,100 acres in the northern most part of the Five Ponds Wilderness, area to the largest stands of old growth in the Adirondacks. The Five Ponds Wilderness runs right up to suburban neighborhoods around the community of Star Lake. The APA is proposing to reclassify this 2,100-acre chunk from Wildeness to Wild Forest to recreate a snowmobile link between Star Lake and Cranberry Lake that partly ran along the old railroad bed of a long canoes upstream to the Rock Pond and Sand Lakes outlet, up which they paddle and drag some more to reach these lakes. Once beyond the Sand Lakes, they carry to Wolf Pond and then carry to the 5 Ponds and eventually the Owegachiche River. The New York environmental community was split over how to classify this tract. Several advocated total wilderness, others advocated a wilderness/wild forest split. All groups agreed on reclassification of 12,000 acres of isolated Wild Forest to Wilderness (with the Watson's) purchase these tracts adjoining either the Pepperbox or Five Ponds Wilderness).

Public comments echoed this split. With some 35,000 acres on the line in the Watson's East Triangle classification, the APA staff proposed to classify about 10,000 acres as Wild Forest, areas that contain the majority UMPs (see chart). Under the Adirondack State Land Master Plan, each Forest Preserve Area is supposed to have an UMP, which is created by the DEC and approved by the Adirondack Park Agency (APA) to guide all development, maintenance, natural resource protection, and access in the area. The APA recently approved the first UMP for the High Peaks Wilderness Area (after a tortured 25-year public and backroom political process) and the DEC has just released a draft UMP for the Comminants Historic Area; a newly created area carved out of the Vanderwhacker Wild Forest Area.

This announcement was facilitated by the new project funding in the NYS Environmental Protection Fund (EPF). In the 1999-2000 budget $12 million was allocated in a new Stewardship category in the EPF. Half of these funds will be used for Forest Preserve stewardship: trail maintenance, parking areas, new bridges, lean-tos, and Forest Preserve planning projects. No staff can be hired (the DEC cannot use EPF budget to cut administrative costs), special contractors can be hired. There's currently a $5 million backlog of projects in the Adirondack Park for approved projects for trail and road maintenance and other infrastructure. Moreover, a dozen campground areas have failing sewage systems in dire need of upgrades. This funding will address all of these issues.

The Adirondack environmental community lobbed hard for the stewardship funding with the understanding that DEC would commit to revisiting the UMP development effort. The Governor also added six new staff positions at the DEC to work exclusively on UMPs. It is my hope that having codified, APA-approved UMPs for all areas of the Forest Preserve will eliminate the abuses of motor vehicles in the Forest Preserve and blatant mismanagement by the DEC field staff.

Peter Bauer is the executive director of the Residents' Committee to Protect the Adirondacks and can be reach at P.O. Box 27, North Creek, NY 12853, (518) 251-4257.
Beyond Representation

ECOLOGICAL RESERVES

IN THE NORTHERN FOREST

by Andrew Whitaker

Biodiversity protection is the goal of many conservation organizations and state agencies at work in the Northern Forest. Preservation effort has sought to protect rare as well as exemplary common natural communities with the goal of assembling a living library representing Nature's diversity.

Earlier forest preservation efforts resulting in the state and National Forests of the region may have been inspired by humanist ideals or aesthetic appreciation of Nature, but by virtue of their size they provided an umbrella of protection to a wide range of communities and species. In the wake of the Northern Forest Lands Council, and with the development of conservation biology, the concept of ecological reserve systems has crept into regional biodiversity protection efforts. Industrial timber sales, wholesale logging, and the nibbling effects of development have however been met with no answering comprehensive plan for saving the Northern Forest's ecological richness and variety.

Ecological reserve systems are based on the desire of conservation biologists to save all the pieces, but to save their functionality as well. Ecosystem processes cross ownership boundaries, and small, localized preservation effort is no guarantee against extinction. Elements eliminated from our ecosystems — such as old growth forest, natural disturbance over large acreage, and predation by carnivores like the wolf — once provided important ecological functions that contributed to diversity, stability and resilience at both site and landscape levels.

Ecological reserves aim to restore these functions as well as protect habitats and preserve species. Ecological reserve design may indeed be based on representation of all native communities — but addresses the larger issue of ecological health across the landscape.

The following is a by-no-means exhaustive look at the separate states of the Northern Forest and an assessment of how far they have gone beyond representation of the rare and exemplary to protection of the whole.

THE ADIRONDACKS — FILLING IN THE PIECES

New York has the legacy of the Adirondacks and the Forest Preserve — a century's worth of coarse filter conservation based on the availability of land and the funds to purchase it. Such protection has incidentally captured a slice of most natural communities and many special elements within the wider Park boundaries. The "Forever Wild" Preserve has also laid the foundation, with extensive areas of low road density, for restoration of top predators such as lynx and wolf, which could restore missing ecological functions to a major piece of the Northern Forest.

The 1988 planning publication of the Adirondack Council, Saving All the Pieces (part of the Council's 2020 series) addressed all three aspects of reserve design, identifying rare sites not yet protected, under-represented communities and also potential habitats for one focal specie; the wolf (see map). The state Nongame and Natural Heritage program continues work in the first two areas while the fate of the wolf and lynx hang on recovery plans being considered by the US Fish and Wildlife Service.

How well has the Preserve captured representativeness and the rare and threatened? Bill Brown of The Nature Conservancy's Keene Valley office believes the Park has accomplished two things. First, it has done a "good if incomplete" job of capturing the rare and representative. Second, the Park has protected the ecological richness and biological integrity of a landscape, with wetlands, old growth, and the very size and extent of protected areas the outstanding feature of the Adirondacks. While invasive plants, recreational impacts and acid rain threaten protected areas, the conservation challenge is largely one of filling in the pieces of an ecological reserve system rather than inventing one.

VERMONT — MOVING PARTS

There are many pieces to the ongoing evolution of ecological reserves in Vermont. The Vermont Biodiversity Project is one of the larger ongoing efforts. The project's goal is to maintain biodiversity in the context of ecological integrity and to "design and map a system of conservation areas that protects the full diversity of landscape, natural communities and species.

The Biodiversity Project progressed beyond communities mapping to add layers of information such as species occurrences, aquatic assemblages, bedrock geology and topography and soils. This landscape diversity was used as a "surrogate for biological diversity." A Geographic Information Systems (GIS)-based project, it assigned to each pixel or computerized snippet of landscape a Landscape Diversity Unit; there were aggregated in polygons representing a sizable area of a region (5%) and then the polygons ranked. To the polygon with the highest diversity ranking was added the next polygon adding the greatest complement and so on. The polygons were fleshed out to reflect waterways and hot spots, or clusters of rare sites.

The resulting lines are meant to inform, rather than drive, reserve design. Questions will arise when they fall some way short of public lands, or when public lands do not appear within them. The limitations of the approach are acknowledged by its authors. The Biodiversity Project has been spearheaded by Elizabeth Thompson of the Natural Heritage Program and John Roe of The Nature Conservancy. David Capen of the University of Vermont's School of Natural Resources, and Agency of Natural Resources personnel. Biologists, independent field naturalists and doctoral candidates have all contributed.

Many of the same people have figured highly in Champion lands decision-making and Agency of Natural Resources land planning. ANR is close to releasing the final report of its lands acquisition committee, which has at least used the language of reserve design though not to the satisfaction of those advocating large core reserves across the landscape. The Agency is also drafting long term management plans for its forests, parks, natural areas and wildlife management areas.

Informing that process is a prototype for ecological management at Pine Mountain, a Wildlife Management Area in the Topsham area, where the rudiments of managing for specific aspects of biological diversity are being tested. Charles Johnson of the Agency's Department of Forests and Parks characterized these efforts as "getting the information, we need to begin design of ecological reserves" with the Vermont Biodiversity Project. Once it has progressed through acadeic review, providing a "founding" role.

Finally, Vermont has largely avoided integrating biodiversity recommendations with its clearingcutting rules; the rulemaking process indeed was in my view episodically scientific rather than comprehensively so and driven more by the political desire to quell the extremes of opposition to the law and clearingcutting itself rather than to investigate the impact of clearingcutting on biodiversity and recommend mitigating steps. Whether such permitting of large cuts is wise remains a question mark; but the condition of the private "matrix" forest is unquestionably key to biodiversity across the state and region. The more even-aged, fragmented and simplified the matrix forest becomes, the less of a role it will play in maintaining biodiversity.

NEW HAMPSHIRE — PIECES IN PLACE

The Scientific Advisory Committee of New Hampshire's Ecological Reserve Project issued its report in July of 1998. Over the past year, the Project has largely lain dormant while awaiting the progress of New Hampshire's Land and Community Heritage Commission, in expectation that the work of the two bodies would dovetail. With some feeling that work of the Project should probably have proceeded in the interim, Steering Committee members will in January be discussing

Joe Pyeweed in Strafford Bog, NH. The Northern Forest's natural communities must be preserved not only in representative samples but at a scale sufficient to preserve their viability. Photo © John McKeth

The Northern Forest Forum

New Year's 1900
actual implementation of a reserve system and how that will proceed. The report of the Heritage Commission, released in December, mentions but does not highlight the work of the Ecological Reserve Project.

Ellen Snyder of the University of New Hampshire’s Cooperative Extension System has, since the departure of The Nature Conservancy’s Michael Stevens (to TNC in Idaho), provided half time actual implementation of a reserve system and how that will proceed. The New Hampshire’s Cooperative Extension System has, since the Ecological Reserve Project, using the criteria developed by the Scientific Advisory Group to answer the question of “how do you actually select lands and monitor them” to assess effectiveness of conservation measures.

It is likely that the first steps in a NH reserve system will take place on existing conservation lands already in the hands of public or non-profit entities such as SPNHF and Audubon.

Further, Ms. Snyder suggested that the work of the Steering Committee will help guide and prioritize new acquisition efforts through the use of criteria assessing the ecological value of sites and also provide impetus to moving all land management toward biodiversity protection.

The Scientific Advisory Group had three goals: 1) assess the current state of New Hampshire’s Biodiversity 2) examine the adequacy of the current system of conservation lands in protecting the state’s biodiversity and 3) define scientific principles of reserve design.

The report finds that “The biodiversity of New Hampshire is threatened at the species, natural community, and ecosystem level.” Among the multiplicity of factors for this are mentioned rates of urban development in parts of the state, the natural rarity of some community types and hence their particular vulnerability to development, and widespread alteration of aquatic, estuarine and coastal wetlands about which little is known to begin with.

Of relevance to discussion of conservation of Northern Forest regions, the Report states, “There are few exemplary examples of even the most common natural community types throughout the state.” Lack of old growth forest communities is one aspect of this; lack of undisturbed forest another; under-representation of low land and more productive soil types another.

In its discussion of the principles of reserve design, the Report acknowledges that larger size, connectivity and buffer distance are key to protecting biodiversity. The recommended threshold size for viable reserves of common, matrix reserve forest is 5-25,000 acres; larger reserves are said to be more likely in the White Mountain ecoregion. Recommended action in this region is for review of management on currently conserved lands, assessment of their connectivity, and protection of rare and isolated species and communities. The report notes on the one hand that “current” biodiversity management strategies on public conservation lands may not be sufficient to sustain species and natural communities, and on the other that “existing conservation lands have provided the state’s most significant areas for restoration of core forest areas.”

The Report’s implications for conservation in the state’s Northern Forest region is that the current approach to land deals is insufficient. The Report clearly points to the possibility of 1) restoring exemplary examples of even the most common forest types, at all elevations, across the range of soils 2) linking core areas that would aggregate with time and 3) thinking in terms of fairly large acreages.

As such, the report provides citizen activists plenty to go on in advocating for a more ambitious approach than has been displayed in land conservation deals dating from the Nash Stream purchase of the late 80’s to the recent Champion deal in the same northern New Hampshire area. Current reserves on this land are 1.) in the higher elevations 2.) not on productive mid-slope and valley soils 3.) not regionally considered in the context of connectivity to other core areas such as the Vermont Champion lands and 4.) not aggregating to create remoteness, roadlessness, and the large size that will make natural rather than human disturbance the main agent of change.

MAINE — MISSING PIECES

The Maine Biodiversity Project, which has been closely covered and criticized in the Forum, has proposed a reserve network for public lands in Maine, conducted a biodiversity assessment in 1998 and recently published guidelines to sustaining biodiversity in managed forests. The latter examines site, property and landscape level management considerations, appropriate in a state of large ownerships. The operating political assumption in Maine, however, that the privately owned forest can sustain a high level of biodiversity, and that an ecological reserve system on public lands alone can protect the rare and exemplary, is at odds with the statistical picture of Maine’s forest.

Cathy Johnson of the Maine Natural Resources Council believes that a system of ecological reserves is in the offing on public lands in Maine despite the prospect of a legislative initiative of the Maine Alliance of Maine to require legislative approval of reserve designations. A Bureau of Public Lands report due in January 2000 should address reserves. Johnson emphasized that, with private lands left out of the biodiversity assessment, a public reserve system is only a beginning.

At present, the Land For Maine’s Future program, with $50 million in hand, and a citizen-nomination procedure used to select lands for acquisition, is the prime vehicle for adding to a public reserve system.

An ecologically significant reserve system for the state of Maine remains therefore very much in the domain of citizen activists working with independent scientists. Proposals for a 100,000 acre reserve in the Greenville area and a wildland in the Boundary Mountains are currently being developed as is a much larger Wildlands Project proposal for the entire state. A reserve design from TWP, expected in 2000, will be based on existing roadless areas and needs of focal species.

THE REGION’S EFFORTS

As in forest practices reforms, the separate state’s have exhibited different approaches and levels of progress in implementing reserve design. These efforts have largely focused on capturing biodiversity through representative, with ecological integrity, watershed-based design, andrewilding through restoration of carnivores a tangential or repressed approach. Only the Adirondacks, by virtue of over a century’s worth of land purchases and a “Forever Wild” land designation, enjoys a landscape-level of biodiversity protection and ecological health — with some key species, connectivity and functions still missing.

As biodiversity initiatives across the Northern Forest unfold, we can hope that there will be some further integration of strategies. The science suggests that biodiversity is best protected when the rare or exemplary are embedded in a matrix of unmanaged, unfragmented forest, when streams have watershed-level protection and when common, forest is represented in sizable acreages sufficient to maintain diversity through natural disturbance. Restoration of top predators is a further development amply supported by a public becoming accustomed to seeing moose, coyote or wild turkey in suburbia. Preserving biodiversity with large core reserves, connected and buffered, will remain a matter for citizen engagement as well as science. Conservation organizations view themselves as working in tandem with industry to preserve a working landscape, albeit one in which forest practices are integrated more closely with biodiversity considerations and rare and exemplary communities are protected. Public understanding, involvement and pressure remain vital elements in conservation.
Large, Unfragmented Forested Areas will restore & maintain diverse, functioning ecosystems

Readers seeking an encapsulation of the science of ecological reserve design have many options, but among the most recent is Continental Conservation: Scientific Foundations of Regional Reserve Networks, published by The Wildlands Project through Island Press and edited by Michael E. Soule and John Terborgh. Its chapters are authored by numerous conservation biologists and researchers and are extensively foot-noted.

Continental Conservation lays out the rationale for ecological reserves as the spatial fragmentation of habitat, habitat destruction, and resulting species loss proceed. Knowing the pieces back together, through protection of the habitat of keystone species, or swarming, is fundamental:

"...research is showing that the rules guiding the architecture of regional conservation networks are, to a considerable degree, determined by the habitat requirements of keystone species." "Nature is now in pieces, and the whole guiding is a justification for restoring connectivity on a regional or landscape scale." Today, "each isolated remnant of nature is caught in a tightening vise of civilization."

The spatial fragmentation of habitat results in an isolation of natural processes across landscapes, regions, and even continents. Economic development and the conversion of land to its uses is thus an essentially entropic enterprise: "every field biologist knows the world is in crisis." (On the subject of conservation and activism: A perennial, personal commitment to a place appears to accomplish more than the infusion of large dollops of dollars. Elsewhere, authors call for discipline and scientific rigor in reserve selection and design.)

Of large cores, the authors state: "Experience on every continent has shown that only in strictly protected areas are the full fauna and flora of a region likely to persist for a long period of time." Core areas provide reference areas for comparison to the humanity-altered landscape; they preserve critical habitats and act as reservoirs of biota; they form "biological fortresses against invasion" by exotic species of organisms; and, in a subordinate way, provide ecosystem services that have economic value to people.

Reserve design must be scientific: "It is essential [then] that acquisitions target the lands of highest biological and ecological value..." Further acquisitions should complement previously secured lands. Selection of land for reserve status is driven by three considerations: Special Elements; Representation of Habitat types; and the habitat needs of Focal Species. Special Elements include the rare and threatened plant communities identified by Nature Conservancy-inspired state Natural Heritage programs as well as roadless areas, remnant primitive forest, unique geology and watersheds, and areas adjacent to existing protected areas. In reserve design, planners ought to seek hot spots, or clusters of special element occurrences.

Representation seeks the protection of viable examples of all vegetative communities in reserves, a concept known as "swarming" by saving elements contained within them but not readily identifiable or quantifiable. Within a reserve, representation also encourages inclusion of all soil types and an elevational gradient, so that, as in the case of New Hampshire's Nash Stream, protected and reserved lands are not limited to the more unproductive soils and higher elevations.

Focal Species — often large roaming carnivores — will be a prime determinant of reserve size and configuration (rather than exact locale). A suite of species is recommended, rather than one or several species alone.

Focal species are not necessarily large predators although the authors of Continental Conservation favor them. KEYSTONE SPECIES such as the beaver, in the landscape lead to a cascade of favorable ecological effects (dams, floods, ponds and all they signify); UMBRELLA SPECIES (ie, mature conifer forest songbirds) in whose habitat other species might make their living (e.g., pine martin, fisher). The rationale by which species focal to a reserve design get chosen must be developed and stated.

CONNECTIVE CORRIDORS and BUFFER AREAS are dealt with in illustrative and technical terms. "A century or two ago in North America and in most of the tropics as well, human settlements were the islands and nature was the sea. Now it is the reverse." The gradual chopping up of a forested landscape fragments and isolates it; conservation biology propels the reverse.

Corridors are parts of the landscape that link large forested cores. To protect them, they need to be identified, and monitored. Nutrients, genes, predator and prey, migratory patterns: all rely on habitat connectivity. In the simplest terms, the battle against extinction is being lost because the processes that maintained biodiversity prior to human settlement has been disrupted. Connecting cores is thus an essential of any viable reserve design.

The scale at which connectivity is considered influences reserve design. Ambitionists crossing a highway face more localized challenge than bear or wolf populations. The latter figure more highly in the design of regional networks, and would require much greater connectivity.

BUFFERS AREAS "maintain some degree of wildness but allow sustainable economic uses that are compatible with the goals of the reserve network as a whole." Maintaining native biodiversity is a goal. Logging in buffer areas would seek to maintain continuity of vegetative cover, minimal road density, and low impact methods at the site level. Buffer areas form a part of the habitat of focal species, but may not provide critical remoteness. Wolves, for instance, may populate managed forest, but only from source wilderness areas.

Monitoring is necessary. Reserves are in some ways hypotheses (as is our developed and managed landscape). Follow-up monitoring provides a guide to management that may be necessary within reserves (over a short time span) and helps assess the effectiveness of reserves at doing what they are supposed to: preserve, restore and maintain for perpetuity the many components of biodiversity.

When monitoring can be accomplished through the efforts of citizens trained to scientific rigor, I would add, ecological reserves gain an important means of public outreach, support and integration with culture.

Are there skeptics of reserve design within the scientific community? Does a reserve design make sense for the Northern Forest? Will a system of ecological reserves here survive political suppression to achieve the landscape scale success envisioned by conservation biologists?

The short answer is yes, yes, and yes. Scientific skeptics — who have some valid criticisms and perspectives — are joined as well by academics who criticize Wilderness as a human construct. Most of these criticisms do not negate the ecological validity of Reserves, or the spiritual benefits of Wilderness either, for that matter, and may well end up informing and improving Reserve strategy and design. The Northern Forest needs an Ecological Reserve system to preserve its biota, and allow for the full expression of its native biodiversity.

The answer to the last question lies with the citizen. Outside the Adirondacks, the unfulfilling of conservation deals has demonstrated the political-institutional appetite for placing the working forest model at the forefront and limiting conservation dollars to scenic and recreational areas, special elements, limited representation, and isolated core reserves; an ecologically truncated approach. Although the limited conservation dollars available for direct acquisition may be one reason, there is the prospect of enhanced future funding, as from a renewed Land and Water Conservation Fund. Strong leadership on the behalf of a reserve network could strengthen funding prospects and build public awareness of what a reserve network intends to achieve.

As strongly as the public may support Wilderness, its appetite for protracted battles with industry or private landowners is probably limited. An Ecological Reserve network has in this regard a powerful and inherent advantage, the same advantage that hike cores, corridors and buffer areas a superior approach to saving species than the under-exercised Endangered Species Act. A Reserve network focuses attention positively to those areas where nature still functions and can be restored. In the Northern Forest, many of those large areas are routinely on the market. We have willing sellers, and with a regional reserve network placed before the public into which these lands could be fit, the probability of winning buys.

These advantages also are relevant to the necessity of reserve design in the Northern Forest embracing a multitude of landownerships, from the public through a variety of agencies, to large companies, land trusts, families and individuals. Especially in landscapes dominated by smaller landowners, the tactical approaches afforded a reserve design by broad public support and understanding is key to its success. Just as important as placing reserve proposals before the public is empowering the public with the science of reserve design. A citizenry that starts to look at existing public lands in the Northern Forest as well as purchaseable timberland finds the perspective of reserve design may pose a vague threat to scientific rigor — but with the abundant reward of a system of ecological reserves that get off the maps and onto the ground.

Copies of Continental Conservation are available from Island Press by phone at (900) 928-1,102; or via website: WWW.ISLANDPRESS.ORG.

Northern Forest Forum New Year's 1900
The Northeast Highlands, encompassing most of Essex County and a small part of Orleans County, is distinct from other areas of Vermont, and scientists agree that it is important to capture that distinctness in any statewide conservation strategy. Among the things that make the region distinct are rare natural communities such as black spruce swamps, dwarf shrub bogs, and an unusual oak stand, rare plants such as mountain cranberry and yellow-eyed grass; rare boreal species such as gray jay and spruce grouse; highly oligotrophic lakes; and the state's largest deer wintering area. In addition to these unique features, the area's remoteness and lack of development make it especially important for mammals with large home ranges and for migratory songbirds. The connections that the land provides between protected forest land to the north and south [and east and west—ed. note] make it an area that is vital to the long term ecological integrity of northeastern Vermont and northern New Hampshire.*

ZONE 1—THE EVENTUAL US FISH AND WILDLIFE REFUGE LANDS

The 39,041 acres recommended for fee ownership and managed as natural area accomplish several conservation objectives. Zone 1 has as its core the Nulhegan basin, an area that has long been recognized as significant for its unusual natural communities, its rare plants and animals, and its deer wintering area. Lowland black spruce forests, bogs, swamps, and a number of streams feeding into the Nulhegan River characterize the basin.

In addition to the Nulhegan basin, zone 1 includes higher elevation hardwood and mixed wood forests in the watershed of the basin itself. These forests are not a rare community type; instead they represent the matrix forest of the Northeast Highlands, with all the characteristic plants, animals, soils, and ecological interactions that make up the forest. Zone 1 also includes Lewis Pond, one of the most significant ponds in the Northeast Highlands. Mount Monadnock is also included in this classification, to give some protection to its special geological and botanical features as well as its scenic importance.

Protected over time with no timber extraction, these lowland and upland forests, and the waters that flow through them, will eventually provide an intact, old-growth example of this landscape type and its constituent communities and species. It will be large enough to function naturally. Where natural disturbance is necessary to maintain communities, it will act. Where animals need intact forest to move about, they will have it. When climate change causes change in community composition, there will be room for that change to occur without the loss of species."

MANAGEMENT

“Zone 1 will be managed primarily for biodiversity values. In general, this means that no timber will be harvested, though there may be small, localized exceptions to this to meet other management objectives. Some roads will need to be closed over time to allow for recovery of the forest to an intact, unfragmented condition. Some recreational use will be allowed; providing that it does not threaten the ecological integrity of the area. Hunting, fishing, hiking and snowmobiling are among the uses that will be allowable in certain areas and circumstances. The details of management of the deer herd have yet to be worked out, but it is unlikely that management for biodiversity values will conflict with the maintenance of a healthy population of deer in the area.”

NATURAL AREA, ZONE 2A

The 3,730 acres in this zone allow for the protection, through conservation easements, of special natural areas identified by the Vermont Nongame and Natural Heritage Program. Among these areas are Ferdinand Bog, a large wetland complex with excellent examples of poor fen and dwarf shrub bog communities, as well as a large deciduous wintering area and the rare gray jay. Other areas are West Mountain Pond, Mud Pond, Dennis Pond, Wheeler Pond, Paul Stream Pond, and East Mountain, an old growth spruce forest. A total of sixteen rare species and six significant natural community types is protected in these areas.

Each natural area will have its own specific management requirements. The lakes, ponds, and wetlands will require buffers of at least 100 feet, and in some cases buffers of up to 300 feet will be required. Within these buffers the only logging should be single tree harvesting. No skidders should enter the buffers themselves. These buffers provide corridors for the movement of wildlife that use the wetlands, and protect water quality. East Mountain is an old growth spruce-fir forest in Zone 2a. No timber should be extracted from this area, and a buffer of 300 feet should be provided in which no timber is extracted.

THE STATE LANDS—ZONE 2B

“Zone 2b contains 28,812 acres [Vermont acquired 22,000 acres — ed. note] recommended for protection by forestry easements. These easements will call for forest management that results in a high degree of ecological integrity. This zone creates a corridor of intact forest that links the protected Nulhegan Basin and Hancock Forest Legacy Lands to the north with Victory Basin to the south. It also provides a crucial link to protected forest lands in New Hampshire. It provides an ecologically intact working landscape surrounding Zone 1, giving those lands a greater degree of protection and long-term viability.”

MANAGEMENT

“These forests should be managed in such a way as to mimic the natural forest composition and structure, and to mimic natural disturbance processes (such as canopy gaps created by single tree death), while allowing for the harvest of some timber. The easements should limit changes in species mix, unless those changes bring the forest closer to its natural condition. Easements of this type will have to be developed specifically for each forest type, and may need to be tailored to specific site conditions. It may be desirable in Zone 2b to close some roads over time to reduce forest fragmentation. In any case, roads should be as small as possible. Recreational uses such as hunting, fishing, hiking and snowmobiling will be allowed on these lands. Lakes, ponds, and streams within this zone should be protected with adequate buffers. The size and nature of these buffers is not yet determined.”

Continued Next Page
The Road to Coburn Gore

Governor King Rescues East-West Highway From Trash Bin

By Pamela Prodan

Governor King Unveils His 'Seven Deadly Sin'

With a resounding 'No,' the Maine East-West Highway Economic Impact Analysis answered the question: Would economic benefits be likely to flow to rural parts of Maine from the construction of a four-lane limited-access highway? But even before the last of the four technical reports in the analysis headed to the printer, Maine Governor Angus King shredded the analysis and its conclusions. On October 6, the Governor announced what he called "The Maine East Seven - Seven Steps to Implementing Better East-West Transportation in Maine."

While the seven steps appear to paint the entire state with a broad brush of highway and railroad improvements (the plan calls for simultaneously upgrading 396 miles of seven highway corridors around the state as well as collector roads and railroads) the plan also signals Gov. King's decision to embark on a mission to keep this political highway alive indefinitely. The plan is for the eventual construction of a four-lane, limited-access highway across Maine. His priorities are clear. The first of his seven steps involves border-crossing and highway upgrades from New Brunswick to Greater Bangor. The second step involves a new limited-access highway linking I-95 to Northport. Both projects include purchasing land for expansion to four lanes "as they are needed in the future."

In his speech, Gov. King announced that the highway component of this seven-step approach will emphasize the corridor from Calais to Coburn Gore. "As this east-west highway is upgraded over time, sufficient right-of-way will be acquired to create the opportunity for the future expansion of these corridors to four lanes as the need arises."

Despite his rhetoric, the economic impact studies show that the corridor to Coburn Gore, if built to four lanes, is the most expensive alternative of all the ones examined, with a ratio of economic return per dollar invested of less than 0.5 and a cost of $439,239 for each job created by the highway. In addition, this is acknowledged by the Department of Transportation (DOT) to be the most environmentally constrained corridor in the state. The studies also found that "The capacity of the rural segments of the existing east-west corridors is sufficient to accommodate year 2030 traffic volumes at a satisfactory level of service."

Ignoring the plain conclusions of his administration's economic impact analysis, Gov. King proclaimed, "It is clear from the studies that considerable economic benefits would accrue to the State by improving our links to Canada and in particular the growing markets of Montreal and Toronto."

"Not a word did he say about Maine's Sensible Transportation Policy Act, which requires examining alternatives to new highway construction. Not a word did he say about need, as none exists. If nothing else, the Governor's speech proves that the East-West Highway is a political scheme whose logic and vision is conceived in a paper world of maps and balance sheets, not geography and necessity. The concept has a life of its own, and its present incarnation is just one variant of many that have sprung up over the years. The East-West Highway was last proposed in 1987 as a new highway spanning the mountains from Rangeley, Maine to the northern tip of New Hampshire and on to Sherbrooke, Quebec. Now, it goes to Coburn Gore."

DOT Commissioner Melrose Makes His Rounds

This fall, Transportation Commissioner John Melrose appeared at forums around the state to push the King plan. I asked him why, given the compelling findings in the state's economic impact analysis, the four-lane concept is still dead. He replied that the idea is to move beyond debating the merits of a four-lane highway and instead focus on upgrading the east-west corridor and preserving the option to expand to four lanes in the future.

When I asked for specific numbers as to the cost of Gov. King's proposed highway upgrades and how much additional personnel would be needed to maintain the expanded roads, Commissioner Melrose projected the cost at less than half the $1.2 billion projected for a four-lane highway. He projected no need for a significant increase in personnel. He did, however, express the concern that the accelerated pace of construction proposed by the administration might actually overstep the capacity of Maine construction firms to perform the work in the time projected.

The most encouraging aspect of the administration's proposal is the apparent recognition of the need to protect existing corridors against further encroachment by buying the necessary right-of-way and development rights to limit access and other actions which could, if left unchecked, degrade the quality and function of the roads. But it remains to be seen whether support for access management will actually result in a policy change for the state or just be a red herring to deflect criticism from the central issue of constructing a four-lane limited-access highway. In a recent conversation with a DOT employee I was told that there is more to come from the administration and that the administration's goal is more...

The Case for Ecology on Vermont's Champion Lands (Continued from previous page)

Zone 2c: Easements, Managed for Sustainable Forestry

The remainder of the land, 64,109 acres [upgraded to 89,000 acres acquired by Essex Timber Company], is protected by a general forestry easement which allows for timber harvesting in an ecologically sensitive manner. It is less restrictive than the Zone 2b easement, allowing for greater extraction of resources. This easement protects the integrity of the working landbase that characterizes Essex County.

Timber extraction in Zone 2c should be conducted in an ecologically sensitive manner. Roads should be kept small, and erosion should be minimized by the use of water bars and seeding. Patch cuts should be kept small, and patches of clearcut are generally left to reseed. Lakes, ponds, and streams within the zone should be protected by buffers. The size and nature of these buffers is not yet determined."

NOTE: A DERIVATION PROVISION

The 89,000 acres that were eventually sold as part of the Champion land sale to the Essex Timber Company are studied covered by an easement. Many of the easement's provisions genuinely qualify it as a conservation easement. However, one stipulation is that the owner of the land, after the year 2040, cut on an annualized basis over a span of years, the equivalent of half the annual growth. While this level of cutting does probably correspond to a level that allows for a long-term silviculture conducive to the growing of sawtimber, the provision itself has no merit as a conservation instrument. It is an encompassment purposely placed to forestall the subtraction of lands from the timber base and their inclusion in unmanaged reserves.

The provision begs the question: where will the base data come from? How will rates of growth be determined? Foresters are well aware that rates of growth are highest in young forest — is this an automatic incentive to keep them young? Because the Champion forest was largely cut-over in the 80s, its pioneer species — particularly balsam fir — will only be at mid-life in 2040 (and their rate of growth existing). Without paper data, the State林 company has argued for and practiced forty year rotation formulas, their even-aged approach has precluded stages of forest succession that favor such species as yellow birch and red spruce. Presumably these are umbrella deals for other aspects of forest biodiversity. While "1/2 Growth" provisions may mesh with the frequent/light cutting approach, they have regard to the obligation of growth.

The vital theme in all future generations of these easements is just one variant of many that have sprung up over the years. The East-West Highway was last proposed in 1987 as a new highway spanning the mountains from Rangeley, Maine to the northern tip of New Hampshire and on to Sherbrooke, Quebec. Now, it goes to Coburn Gore. DOT Commissioner Melrose Makes His Rounds

This fall, Transportation Commissioner John Melrose appeared at forums around the state to push the King plan. I asked him why, given the compelling findings in the state's economic impact analysis, the four-lane concept is still dead. He replied that the idea is to move beyond debating the merits of a four-lane highway and instead focus on upgrading the east-west corridor and preserving the option to expand to four lanes in the future.
along the lines of "east-west mobility," than a four-lane highway. But no study has shown east-west mobility to be a problem, and even if it were, there is no reason to assume that highways are the best solution.

**HIGHWAY PROPOONENTS PERFORM DAMAGE CONTROL**

Although proponents were initially disappointed with the economic impact analysis and commissioned a 41-page critique of it, they subsequently put their own spin on events. They credit the administration as having moved past the negatives of the reports and the following realization is no small part due to Commissioner Melerose's public statement that the administration will work toward the overall objective of a four-lane limited-access highway from Calais to Coburn Gore.

It's not at all clear where funding is coming from to pay for the work of the proponent group, the East-West Highway Association, a.k.a. Maine Citizens for Increased Jobs and Safety in Bangor. The group has refused to release its funding sources. Highway construction is a big industry and investing in lobbyists and public relations people is a minor investment when spread out over a half-billion dollars worth of highway construction projects. The pro-highway group is also suspected of some to be linked to the Canadian-based Irving Corporation, which is seen as a prime beneficiary of an east-west highway across Maine. According to the economic studies, approximately 60% of the total vehicle hours saved from constructing a four-lane limited-access highway from Calais to Coburn Gore would flow to external users, i.e., Atlantic Canada shippers.

### THE CHALLENGE AHEAD

The studies performed to date on the East-West Highway concept contain plenty of ammunition to defeat the proposal to construct a four-lane highway across Maine. The studies show that capacity on existing east-west corridors is sufficient well into the next century. They also show that the economic benefits of such a highway are moderate at best and unequally distributed. The cost of each job created by a four-lane highway ranges from $190,000 to $439,239.

The challenge will be in shaping public policy. Public policies should reflect people's values, but with the rise in corporate power, more and more policies tend to reflect corporate profit. Decisions about how much money should be put into highways should be informed by the likely outcomes for communities and the natural world, not just corporate coffers. I am convinced that the East-West Highway debate is really about conflicting visions of the future of Maine. For those of us who value rural Maine and the opportunities that already are here, the East-West Highway is a solution searching for a problem. The big question is whether highway boosters will be able to convince policy makers that rural Maine has a problem that needs this solution.

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**Phase IV Report Shows Less-Than-Positive Effects of Interstate Highways**

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### GENERAL FINDINGS

- **Rural mobility**
- **Population growth**
- **Economic growth**
- **Environmental impact**
- **Safety and accident rates**
- **Highway congestion**
- **Cost-benefit analysis**
- **Public opinion and support**

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**New Year's 1990**

The Northern Forest Forum
Coastal Waters Watch

CANADIAN GROUP PROPOSES NORTHERN CORAL FOREST PROTECTED AREA BETWEEN GEORGES AND BROWNS BANKS

By Derek Jones and Ron Huber

The Canadian Ocean Habitat Protection Society (COHPS) recently unveiled its proposal for a Northern Coral protected area in the deep water between two sunken plateaus that frame the northeastern edge of the Gulf of Maine: Georges Bank and Browns Bank.

The proposed protected area encompasses sections of Browns Bank's North East Peak and Romey's Peak on George's Bank, and also includes the "Hell Hole" the turbulent waters and seafloor of the Northeast Channel that separates the two Banks.

Historically the richest area in Canada for the diverse Northern Coral tree coral communities, the area has suffered significant damage in recent years. Offshore dragger boats that have scraped clean the shallower areas of the Georges Bank and Browns Bank, and elsewhere along the Scotian Shelf, are now sending their scraper nets down one, two, or more fathoms, and are destroying the coral 'trees' and 'shrubs' that cover the seafloor.

If designated, the COHPS Northern Coral Forest Marine Protected Area would be the world's first marine protected area specifically set up to protect northern coral species from harm. One of the biggest challenges to protecting deepwater coral forests is their remote inaccessibility. Unlike tropical corals, the deep water corals do not have a symbiotic relationship with photosynthetic algae. As animal-only coral organisms, they rely entirely on capturing copepods, other zooplankton and microscopic life that move in an edible fog across the deep sea floor.

Slow-growing (a half-inch thick coral tree may be 400 years old), some scientists think that the deep ocean coral trees surviving in the deepwaters off Maine and Nova Scotia may be among the world's oldest living organisms. Some specimens appear to have been continuously alive for at least 2,000 years.

Two of the most important northern coral species include the Sugarcane-like Porphyra Arborea and the bushy low coral shrub species Primnoa Resedafoliosa. In combination, the two animal species provide extremely high quality sheltering habitat for juvenile groundfish and other small animals that are otherwise quickly the prey of the vast array of predator fishes that live in these deep waters. The coral branches and trunks are also colonized by barnacles, mussels, sponges and even other coral species, creating a highly productive deep water seafloor environment that is believed to have been one of the reasons for the extraordinary biodiversity and productivity of the offshore waters prior to the intensive scrape fisheries for groundfish, scallops and deep sea clams.

Quoted in the October 21, 1999 edition of the Globe and Mail newspaper, McMaster University biologist Michael Risk said the deep ocean corals off Nova Scotia are likely "almost the longest-living things on the planet — older than redwoods, older than giant clams."

In addition to the relentless scraping of the seafloor by dragger vessels, the northern corals are also threatened by petroleum exploration and drilling and the significant damage that has created large entangling nets that have shrunken the once rich coral forests their habitats.

Dalhousie University conservation biologist Martin Willison (willison@is.dal.ca) a leading deep water corals researcher says that research is limited by low budgets for coral research. Because of the depths of the northern corals habitat, expensive research submarines must be rented, and the money to do so just isn't there.

The Northern Appalachian Restoration Project sponsored a joint research project with COHPS in early September that examined the shallower seafloor area near Cape Sable Island, using a remotely operated vehicle equipped with a digital video camera. The resulting images have revealed, in addition to a surprisingly large number of oversized "senior" lobsters, the existence of several previously unknown inshore coral species. The video from the ROV expedition also reveals the existence of the inshore shallow corals by cod, giant halibut and other fish and crustacean species.

Budget restrictions mean government scientists do what they can with the money they have, said DFO ecologist Don Gordon, but that has amounted to little more than a peek at the ocean floor with a remote-operated video camera.

"Even though the interest is there, just having a focused program in corals is going to be very difficult," Mr. Gordon said. "We will do the best we can as part of other projects or on a small-scale basis."

For more information or to offer support, contact:
Derek P. Jones, Canadian Ocean Habitat Protection Society, Box 13, Newellton, Nova Scotia, Canada BOW1PO djpprojects@atcon.com; http://www.atlantis force.org/cohps.html

Marine Probers Find Rare Coral Species off Nova Scotia Coast

(CAPE SABLE ISLAND) — An international team of marine conservation activists and fishermen using an underwater robot has discovered rare northern corals in shallow waters off Nova Scotia, challenging contemporary science which holds that marine invertebrate organisms only exist in very deepwater offshore. The discovery may have major implications for fisheries management, and could lead to a ban on the use of drag gear in many shallow water areas.

Derek Jones, executive director of the Canadian Ocean Habitat Protection Society, announced that his team discovered and videotaped a variety of northern corals at depths of only 30 to 35 fathoms. Scientists have long held that the corals were only found offshore at depths of 200 to 400 fathoms. The expedition, sponsored by the Northern Appalachian Restoration Project and funded by the Sweet Water Trust, was a joint project of the Canadian Ocean Habitat Protection Society and the Coastal Waters Project.

The international team used the ROV Scallop, a small submersible vehicle manufactured by Inuktun Services Ltd of Vancouver, British Columbia. Equipped with a color video camera and powerful quartz halogen lamps, ROV Scallop is controlled by a tether, a control panel, video display and VCR, and is operated by a researcher on the vessel above. See the INUKTON company website at www.inuktun.com.

"The ROV Scallop is a fantastic little device," said Ron Huber of the Coastal Waters Project. The digital video camera and the halogen lamps delivered extraordinarily clear seafloor video that scientists at Dalhousie University and elsewhere are using to re-write their abundance and species distribution surveys of the waters offshore of southern Nova Scotia. In addition to locating shallower water northern corals, including an interesting albino species, the team has also made a number of other discoveries about the status of marine life in Nova Scotia's inshore waters, including the presence there of an abundance of oversized lobsters, a profusion of young cod and haddock in the shallows of the Scotian Shelf, and numerous other animals. The robot was also visited by a seal and by an enormous halibut.

It was also found that at night, lobster bait is swiftly pillaged from lobster traps by 'sand fleas' coming off the bottom at night. Like tiny piranhas, clouds of hundreds of these lentil-sized animals arose from the seafloor and swiftly descended upon pieces of herring and other lobster bait set at the bottom, removing the bait and in the process significantly reducing its value.

Both groups say that information gleaned from fishermen and from explorations by marine scientists strongly suggests that both shallow and deepwater northern corals both play key roles in juvenile groundfish survival by providing food and concealment from predators.

The two groups are pressing for an end to the use of mobile fishing gear that they say has almost completely destroyed thousands of square miles of coral 'forests' that once covered much of the seafloor, and were responsible for the extraordinary abundance of groundfish and invertebrates that existed offshore before the use of drag gear.

The weekend expedition returned to shore with hours of high quality videotape and still images taken. Some of the still images are available on the internet at www.atlantisforce.org/rovpics1.html.

For more information about obtaining copies of pictures of northern coral and other organisms taken during this voyage, contact Derek Jones at (202)745-2950, djpprojects@atcon.com. For more information on the plan for an international marine protected area on Georges Bank, contact Ron Huber at (207)594-5717, coastwatch@acadia.net.
Habitat Protection Society. Photo by Derek Jones.

Long lost ghost net with marine growths. Ghost nets — derelict gill-nets lost by fishermen — accumulate and now cover vast acreages of Georges Bank, which become ecological dead zones. Canadian activists hope to direct funds to their removal. Photo by Derek Jones.

Tanker War!

MAINE DEFENDS ITS OIL TANKER RULES BEFORE US SUPREME COURT

by Ron Huber

Maine, 19 other states join fishing industry in asking U.S. Supreme Court To Uphold States' Rights to Prevent Oil Spills

On December 7, 1999 twenty states, including Maine, submitted a joint amicus curiae, or "friend of the court," brief to the United States Supreme Court, calling on the Court to uphold the state of Washington's oil spill prevention program against efforts by global oil companies and the federal government to strip all US states of their power to regulate the powerful oil tanker industry. The High Court heard oral arguments on behalf of Maine, Washington, and the other states on December 7, 1999.

The essence of the case, called Intertanko vs Locke, is whether or not coastal states have the right to protect their waters and shores from catastrophic oil spills. Under the Oil Pollution Act of 1990, states are granted the right to create and enforce oil tanker safety rules that may even be stronger than federal rules.

Intertanko, an international trade association that represents most of the world's oil tanker owners, is asking the US Supreme Court to throw out Washington State's oil tanker laws. If the Supreme Court rules in Intertanko's favor, then Maine and other state's will also be stripped of their state oil tanker safety laws and regulations, too.

In September, over the strenuous objections of the oil industry, the Maine Board of Environmental Protection approved the nation's toughest regulations over oil tankers and barges, asserting the New England state's power to prohibit entry to Canadian or other foreign or domestic supertankers or other oil ships and barges that don't meet Maine's 'Tired Tanker' standards for worker training and vessel seaworthiness. The state also requires that oil tankers operating in Maine waters be fully staffed, and have an English speaker on the tanker's bridge who can also speak the language of the crew, when the vessel is in motion in state waters.

"Governor King has shown some surprising courage," said Ron Huber, director of the Rockland-based Coastal Waters Project. The tanker industry is powerful and well connected, and has spent years pushing King to order Maine DEP to drop Maine's oil tanker rules. "Mr. King stood up to these special interests. Maine's coastal people and resources are better off because of it."

The oil tanker industry claims that the state safety rules would confuse its captains. "That's a lot of bull," said Ron Huber of the Rockland-based Coastal Waters Project. Most tanker captains run the same routes over and over again through out their careers. Don't try to tell me that a captain that runs a tanker between New Brunswick and Portland, year in year out, is going to get confused about Maine's oil tanker rules. That's purest nonsense." Huber spent 5 years working with the state and other non-government organizations to craft Maine's oil port and oil tanker safety rules.

Amicus briefs in support of states' rights to adopt oil spill prevention were also filed by the Cape Cod Commercial Hook Fishermen's Association and by the west coast fishing organization Pacific Coast Federation of Fishermen's Association.

The Supreme Court is expected to make its ruling by March, 2000.

MORE INFORMATION

Coralas recovered from ghost nets collected here by the Canadian Oceans Habitat Protection Society. Photo by Derek Jones.

The ROV Scallop which documented the presence of rare Coral Species in northern waters. Photo by Derek Jones.

A seafloor assemblage of sponges and soft corals shot by the ROV Scallop's video camera. Dragging for groundfish and dredging for scallops threatens recovering benthic habitats. Closing areas to dragging and dredging would allow ecosystem recovery.

(More images may be seen at http://cohps.atlantisforce.org/galleries.html)
Coastal Waters Watch

Governor King’s Salmon Diatribe: “RESTORATION NOT”

MAINE GOVERNOR ANGUS King’s silly December 2, 1999 essay - “Restoration not Regulation” was an abortive attempt to shift blame for the collapse of Maine’s wild salmon to anyone but the actual industrial culprits. So abjectly was King’s speech a canned big industry PR event, that every Maine television station— even Maine Public Television— collaborated to decline to run it.

Nonetheless, for those with a taste for the Governor’s occasional peculiar forays into industrial PR, King’s handlers put his speech on the internet, where one could choose various forms of Virtual Angus — audio only, audio visual, or text.

http://governor.state.me.us/geo­f­­ice­­salmon2_text.htm

Audio-Video King turned out to be a downloadable file so enormous that few in Maine bothered to wait for the 30-40 minute download time just to view canned King. Those with an interest in the content of the Governor’s latest outpouring could click on the next version for a quick copy of the actual text of his speech, “Restoration Not Regulation.”

There, minus the tooty grin and the empty-suit showmanship (which tie did King have on? You don’t remember?!, one could try to discern just what was troubling Mr King so much about federal efforts to help save Atlantic salmon. It quickly becomes clear that the more appropriate title for Mr King’s speech is simply, “Restoration Not.”

King correctly points to population growth in Midcoast Maine, and the encroachment of multinational agri-businesses, paper companies and foreign owned aquaculture corridors into eastern Maine, as chief culprits in the inability of the wild salmon to replenish themselves. But instead of proposing to hold developers, agri-business and paper companies, accountable by substituting voluntary rules for mandatory laws, King’s assertions in “Restoration Not Regulation” now call for the restoration of a “state plan” that effectively depletes their wild salmon ecosystems.

Instead, industry apologists like King will always seek for options that free industry from responsibility for its actions. But ‘options’ are what the wild salmon don’t have.

Travelling through a particular Maine bay our last but one river into a particular Maine stream, an option for a fish pen operator to bypass his livestock to keep them inside their cages.

Just as it is an option for a logging contractor to keep from loosing a timber spill prevention rules, over the strenuous objections of federal government and opposition groups. All three industries, it goes with­out saying, have continued sloppily to turn off his aircraft’s poison dispensers before approaching that stream.

But Mr King wants the world to believe that the multinational indus­tries glutting themselves on eastern Maine laissez-faire non-regulation would crumble into insolvency if they HAD to exercise those options and become reasonable stewards of the public resources they are so blithely abusing at present.

King’s assertions in “Restoration Not Regulation” are by now eminently backwards, nearly all of them have taken a tumble, once scrutinized. Biggest humbug that he espouses in Restoration Not? The comical claim that not enough time has passed to prove if the state plan works.

On the contrary, it is entirely clear to every biased or unbiased observer, including King himself, that the wild salmon restoration plan, NOBODY, not a single wild salmon-impa­cting-corporation has followed ANY of the suggested protec­tive actions laid out in the state’s plan.

But firmness is what is called for at this dark hour for Maine rivers. Most depleted of their most important predator and keystone species — Salm­so arctic, the Atlantic Salmon.

All three industries, it goes with­out saying, have continued sloppily to turn off his aircraft’s poison dispensers before approaching that stream.

Despite frequent exhortations to the three biggest harmers of wild salmon, the blueberry, fishfarming and logging industries, to voluntarily desist from many known fish-killing practices, all of those industries have continued bad-business-as-usual:

• Logging companies have contin­ued to draw streams’ edges and cre­ating patchwork of of water-warming clearets
• Irrigating blueberry farmers have continued drawing salmon streams dry, or well below known and agreed­upon safe levels
• Aquaculturists have continued to spread fish diseases and to colonize prime wild salmon estuaries with vast­ass‚e­unterprise-owned ‘marine hog farms’

All three industries, it goes with­out saying, have continued sloppily to turn off his aircraft’s poison dispensers before approaching that stream.

King let slip the interesting fact that the recorded number that more than 100 million salmon have been stacked into Maine rivers over the past hun­dred years.

He doesn’t seem to understand that that statistic alone is sufficient cause for immediate listing of the wild salmon. If millions of fish can’t survive in Maine’s wild and coastal waters, then there is nothing VERY wrong. King knows what it is, but his rigid allegiance to big industry, even the low employing, high polluting absentee-owned one, is an act of sheer, keeping his mind clenched tight.

FINALLY: A truth! King notes that “A listing in and of itself will not and cannot bring back the salmon.” So true! This is the very reason why Maine’s state plan for salmon restora­tion has failed so spectacularly; it is merely a listing of things that well­behaved companies ought to do volun­tarily, to stop the decline of wild salmon if they chose. They haven’t. They won’t. Because it seems that the Maine leg­islature lack the political courage to take on Big Pollute, it is up to our fed­eral government to bring about protec­tion for Maine’s rivers. This is a right and proper role for federal govern­ment: to protect the public interest when they fail to do so. By contrast, when the federal government won’t protect the public interest, it is right and good for the states to defend that interest. The recent decision by Maine’s Board of Environmental Protection to adopt strong state oil spill prevention rules, over the strenuous objections of federal government and oil industry is a good example.

Remarkably similar in tone and lack of substance to his rejected Forest Compact, which sought to shield the industrial logging industry from accountability by substituting volun­tary rules for mandatory ones, King’s Restoration NOT will end up on the same historical rubbish heap, leaving our Governor with a single major policy decision in his two terms of office from being merely another obscure late twentieth century historical roadbump.

State to Release Decision on Dragging Tidal Flats

In December, the Maine Department of Marine Resources held a required formal public hearing on a request by waterway diggers that mussel dragging be barred from the intertidal tidal flats which cover hundreds of square miles of the Maine coast.

With little interest being shown by the Department of Marine Resources to reduce or otherwise control mussel diggers presence on the intertidal flats, and with no interest by the drag industry in negotiating, and facing the cost of the control, the local preservationists, the health fishery, Sandworm digger Tom Atherton, a midcoast and downeast

Maine marine worm harvester, consult­ed with NARP’s Coastal Waters Project and with the Washington DC based American Ocean Campaign. On the advice of CWP director Ron Huber, Maine’s industrial mess just don’t have an option for a hard working wild salmon making its way in the world to a place to live. It IS, however, an option for a fish pen operator to dou­ble­blen his livestock to keep them inside their cages.

As just as it is an option for a logging contractor to keep from loosing a timber spill prevention rules, over the strenuous objections of federal government and opposition groups. All three industries, it goes with­out saying, have continued sloppily to turn off his aircraft’s poison dispensers before approaching that stream.

According to Atherton, who recently completed two reports on the mussel versus worm conflict, Maine’s intertidal mud flats simply can not ecologically withstand 25 to 30 square miles being dragged per high tide each day during mussel harvesting season, across the state’s tidal flats from Quoddy to Penobscot.

A decision by DMR is expected soon. Meanwhile, the legislature will be considering a proposal to empanel a study commission on intertidal flat harvesting — a dilatory tactic in the view of Atherton, who would prefer an immediate halt to dragging.
Globalization's Iron Fist: Mexican Troops, American Dollars, Corporate Priorities Overwhelm A People's Sovereignty

The War on the Land in Chiapas Expands — Big Timber a Key
by Orin Langelle, ACERCA Coordinator

IN THIS AGE where multinational corporations increase their influence on the people and governments through various ‘free trade’ policies under the auspices of globalization (or neoliberalism to our neighbors south of the border), people are beginning to realize something is amiss. In the northeast we are seeing raw logs exported to Canada to be milled and then sold back to US markets. Loggers in Maine have seen an alliance with the Native Forest Network and other environmentalists because of the gross exploitation of Maine’s forests by timber multinationals.

Mainstream media more and more is speaking about free trade issues such as the World Trade Organization (WTO). The WTO settles disputes between countries and removes barriers to ‘free trade’ while the environment, workers and communities suffer. Other trade schemes in the works include the Free Trade Area of the Americas. The FTAA is the southern expansion of the North American Free Trade Agreement (NAFTA) and will encompass all of the Americas except Cuba.

One of the first popular resistances to these trade deals occurred when NAFTA went into effect. It came from the southern-most state of Mexico in Chiapas and was implemented by “the poorest of the poor” the indigenous people. Since NAFTA has been in effect, hardships to the indigenous continue to escalate; not just in Chiapas, the state which frequently makes the headlines, but in the neighboring states of Oaxaca, Tabasco and Guerrero.

NAFTA and Big Timber

The power and weight of the timber industry’s influence in Chiapas is best evidenced by the government’s manipulation of Article 27 and the rewriting of other new laws to open up Mexico for timber exploitation.

A precondition for Mexico entering NAFTA was reform of Article 27 to allow for the privatization of previously communally held lands. It was rewritten by forestry under-secretary Luis Telles (later Mexican President Zedillo’s Chief of Staff) and now Energy Secretary) to bring Mexico’s property laws up to par with the requirements of NAFTA. This destroyed the hope of the peasant population to have communal lands to farm. In part, the reform of Article 27 forced the Zapotistas to rebel against the government. Telles then authorized two subsequent laws: a 1992 forestry law that allowed commercial tree plantations and a 1997 revision of the law (now referred to as Krobacker’s Law) that literally granted big timber its wishes.

The law is so named because it implemented a series of proposals made in a June 1995 letter to Telles from Edward Krobacker, IP’s forestry division vice president. Big timber could now receive hefty subsidies to acquire land parcels of unlimited size.

THE SELVA LACANDON

In August of 1999, 10,000 Mexican troops invaded the Montes Azules Biosphere Reserve (a United Nations sponsored conservation area) in their attempt to crush the indigenous uprising in the state of Chiapas. This reserve is part of the Selva Lacandona, one of Mexico’s and North America’s few remaining tropical rainforests. The invasion is part of an effort to stabilize the Mexican economy for foreign investment. One of the biggest foreign investors is the United States, who has billions at stake.

The Lacandon tropical rainforest is rich in biological diversity. It is the home of many different species including jaguar, spider and howler monkeys, harpy eagles, and thousands of birds including the macaw. The Selva Lacandona is part of a larger rainforest ecosystem reaching through Guatemala to Belize in Central America. Unfortunately, the Selva Lacandona sits atop rich oil and natural gas fields and has been exploited for its rainforest woods such as mahogany.

THE ROOTS OF THE CONFLICT

The struggle in the region has its roots in the European invasion which occurred over 500 years ago. The stakes are high, as they always are when people try to control their own destinies and hence, their own land. In this world of dwindling natural resources the question of who controls the land and for what is it used becomes increasingly critical.

In the Selva Lacandon, there was indigenous resistance to the Spanish conquest until the end of the 16th century when most of the Chiapan population was moved from the selvas (jungles) to the highlands for cheap labor. They stayed in the highlands until they started moving back toward the selvas in the 1940s (and increasingly in the 60s and 70s) due to population increases and resultant increased demand for land.

Although the new inhabitants set up ejidos (collective land holdings) for farming, the Mexican government encouraged and gave credits to campesinos for converting that land into pasture for cattle which, in turn, lead to further encroachment into the selvas.

The age old problem of ‘who controls the land and for what it is used’ is as relevant today as it was when the first Europeans came to these lands.

Chiapas, international investment, multinational corporations and the Mexican government have led the assault, extracting riches ranging from petroleum, corn, hydroelectricity, cattle, coffee, forests and blood. Businesses take the wealth of southern Mexico and send it north to the U.S., Canada, Germany, Italy and Japan. Left behind is malnutrition, illiteracy, sickness, poverty and ecological devastation.

The whole crisis is rooted in an ecologically disastrous development model that is expanding with NAFTA.

Before the 20th century the Selva Lacandona...
War in Chiapas Expanding under Globalization

covered 13,000 square kilometers. Today, two-thirds of that is already gone leaving only purely intact the Montes Azules Biosphere Reserve. In the late 1800s, the forest industry began the onslaught extracting mahogany and tropical cedar from the Lacandon rainforest. Deforestation has continued to the present, with the government's low intensity war against the Zapatistas leading to more roads fragmenting the forest. Governmental policies have further exacerbated the present crisis.

What the Mexican government says is an internal problem is, in actuality, an international crisis. The globalization/neoliberalism process in southeastern Mexico began with the practices of the International Monetary Fund and the World Bank. Chiapas' Gustavo Castro of CIEPAC (Center for Investigation of Economics and Political Action) have stated that the International Monetary Fund and World Bank used Mexico as a model for their Structural Adjustment Programs (SAPs). SAPs were started by the IMF for the liberalization of economies to foster privatization of oil, minerals, etc. This all promoted deregulation of trade and financial markets. High interest rates were encouraged to attract foreign investment and short-term speculation. Billions of foreign dollars were invested.

Because private corporations are now diverting profit from sources once slated for governments, governments have in turn slashed social services and environmental safeguards. Castro further explains that governments like Mexico, having lost these funds, have in turn slashed social services and environmental safeguards. Gerardo Gonzales of FORO para el Desarrollo Sustentable (Forum for Sustainable Development) in Chiapas says Grupo Pulsar, a transnational corporation, has a research center in the world's most ambitious forestry project ever. The following is of major interest:

EUCALYPTUS PLANTATIONS

Journalist Jaime Aviles from the Mexican daily La Jornada describes eucalyptus as the perfect neoliberal tree. "Eucalyptus is fast growing, kills everything near it, and makes a lot of money for a few people," writes Aviles. Eucalyptus also depletes nutrients and ground water, destroys potential local economies. CIEPAC's Gustavo Castro states that multinational corporations rent the land for a few years from the campesinos to plant plantations and then give it back to them after it is ruined. Plantation sites are in (or planned for) Chiapas, Tabasco, Vera Cruz and the Isthmus of Tehuantepec. The number of acres of Eucalyptus Plantations in Chiapas is unknown to the NGO's in the region due to the scope of the Mexican military's low intensity war against the civilian populations.

In the southern zone of Chiapas on the Pacific Coast near Tapachula, African Palm plantations have been planted. Corporations have been able to develop the plantations there because of the infrastructure (roads) built by the government. Gerardo Gonzales of FORO para el Desarrollo Sustentable (Forum for Sustainable Development) in Chiapas says Grupo Pulsar, based in the northern Mexican city of Monterrey, has a research center in the world's most ambitious forestry project ever (NAFTAs only humid-tropic research laboratory for ag-biotech) where it is involved in genetically engineered trees and new genetic strains of vegetables. Grupo Pulsar is a Mexican multinational corporation that has ties with Britain's giant British American Tobacco (BAT), which also has been involved in other genetic research, specifically tomatoes. The Los Angeles Times reported on July 26, 1998, that Grupo Pulsar is headed by Alfonso Romo whose agribusiness subsidiary Empresa La Moderna (ELM) acquired 800 more partners in 1998 to farm papaya, melons, chile, eucalyptus trees and bamboo.

Lloyd's Mexican Economic Report, in June, 1999 reported that Grupo Pulsar plans to invest US 300 million dollars over the next ten years in creating 300,000 hectares (three-quarters of a million acres) of commercial tree plantations in the states of Chiapas and Tabasco in southern Mexico. The plan is one of the world's most ambitious forestry projects ever. Jesus Roldan Riveras, the CEO of Grupo Pulsar, has described the project as "The World's largest project ever to develop a forestry industry in Mexico". The plan involves planting 300,000 hectares of eucalyptus trees and bamboo, which will be used for pulpwood plantations to provide industry with raw material to produce cheap and paper to fill in that gap.

On April 6, 1999, IP along with Fletcher Challenge Forests, Westvaco Corporation and Monumo announced their intent to form a forestry biotechnology joint venture to produce and market genetically engineered tree seedlings.
products will be produced, principally

to farmers below, community opposi-
tion brought the cutting to a halt.

Villa Salas said that Monsanto is

supplying agro-chemicals (specifically

PAEPA, a glyphosate herbicide

known in the US as Roundup) for

the plantations. Temple-Inland, Inc.

has also signed on with Monsanto for

more genetic research. Villa Salas was

proud of Planfosur's genetic research,
saying, "Our genetic base is quite wide

so we can play."

Planfosur spokespeople say that

the Mexican government will help

subsidize Planfosur if that venture fol-

low environmental regulations, (such as Mexico's

Forestry Laws). When asked if

NAFTA made the Eucalyptus "possible, Villa Salas and the

1997 Forestry Law (put forth by IP) was more important.

The mission of the Planfosur partners is to plant, grow and harvest

the fast-growing eucalyptus species on a total of 21,000 hectares on a

continuing basis. At the end of the growing cycle, wood fiber will be exported from the

Mexican ports to supply the paper mills operated by the owners of Planfosur

partners. As forestry becomes a major industry in Mexico, larger projects will be

contracted with leaders of communal exploration and privatizations in the

public domain. The railroad is needed. As Major Moises (of the

EZLN) stated, "We are in the process of returning to the land."

A New Approach

Can the indigenous peoples and campesino protect their lands, forests and culture?

No one knows for sure, but one thing is certain, the Mexican and US govern-

ments appear to have no intention of doing so. It is clear that a different approach to solving the

indigenous crisis is needed. As Major Moises (of the

EZLN) said to the Mexican Democratic National Convention in

October 1994, "How are you going to

construct something new, if you do the

same old things?"

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http://www.acerca.org
"What are the natural features which make a township handsome? A river, with its waterfalls and meadows, a lake, a hill, a cliff or individual rocks; a forest and the ancient trees standing singly. Such things are beautiful; they have a high use which dollars and cents never represent. The inhabitants of a town were wise, they would seek to preserve these things, though at a considerable expense; for such things educate far more than any hired teachers or preachers, or any present recognized system of school education. I do not think him fit to be the founder of a state or even of a town who does not foresee the use of these things, but legislates chiefly for oxen, as it were."

HENRY DAVID THOREAU, JANUARY 3, 1861

THOREAU'S COUNTRY: JOURNEY THROUGH A TRANSFORMED LANDSCAPE BY DAVID R. FOSTER.
HARVARD UNIVERSITY PRESS, CAMBRIDGE, MA, 1999. $27.95

Foster completed his research and gathering of extracts and commentary, based on a general portrait of Thoreau's landscape as a symbol of the cultural landscape, where human influences are part of natural history. It is against the preservation of wilderness for its own sake, Thoreau's Country as an idea, natural or cultural forces gathering in them. He calls to his sister to observe the logs from the West lashed to its cars. He comments on the streets of New York. He admires the woodlot owner who has harvested his 8 cords of firewood from 10 acres for thirty years on an evidently sustainable basis. (In his conversation with Thoreau the preservationist and voice for wilderness.) The preservationist and voice for wilderness, Foster proceeds from a general portrait of Thoreau's landscape to a closer look at the ecology of the forest at the cup of the town and a counter to the common assertion that New England's agriculture declined because of the inherent limitations of a thin, sandy or rocky soil and difficult topography.

Foster notes that the erosion common at the brows of hills, the mowers in military term: "Mexico was won with less exertion and less true value than are required to do one season's burning in New England." He disparages the fellow who clears his woodlot and plants rye among the stumps as having the productivity of neither a field nor woodlot. He admires the woodlot owner who has harvested his 8 cords of firewood from 10 acres for thirty years on an evidently sustainable basis. (In his conversation with Thoreau the preservationist and voice for wilderness.) The preservationist and voice for wilderness, Foster proceeds from a general portrait of Thoreau's landscape to a closer look at the ecology of the forest at the cup of the town and a counter to the common assertion that New England's agriculture declined because of the inherent limitations of a thin, sandy or rocky soil and difficult topography.

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Wilderness & the Cultural Landscape of Henry David Thoreau

The Northern Forest Forum

New Year's 1900
remained of a past zoology that included moose, lion (cenomount), oxen (lynx) wolverine and wolf. "Is it not a maimed and imperfect nature that I am conversant with?"

Thoreau delved into the written record of primary narratives and town records, and queried the old timers, for information of these and other attributes of the pre­maimed and imperfect nature that I am conversant with?"

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Illustrations in this review are from Thoreau's Country and are by Abigail Rorer

A Keen, Delicate & Genuine Observer of Nature

NATHANIEL HAWTHORNE

He is a singular character — a young man with much of wild original nature still remaining in him; and so far as he is sophisticated, it is in a way and a method of his own. He is ugly as sin, long-nosed, queer-mouthed, and with uncouth and somewhat rustic, although courteous manners, corresponding well with such an exterior.

But his ugliness is of honest and agreeable fashion, and becomes him much better than beauty. He was educated, I believe, at Cambridge, and formerly kept school in this town; but for two or three years back, he has repudiated all regular modes of getting a living, and seems inclined to lead a sort of Indian life among civilized men—an Indian life, I mean, as respects the absence of any systematic effort for a livelihood. He has been for some time an intimate of Mrs. Emerson's family; and in requital, he labors in the garden and performs such other offices as may suit him — being entertained by Mr. Emerson for the sake of what true manhood there is in him. Mr. Thoreau is a keen and delicate observer — a genuine observer which, I suspect, is almost as rare — a character as even an original poet; and Nature, in return for his love, seems to adopt him as her special child, and shows him secrets which few others are allowed to witness. He is familiar with beast, fish, fowl, and reptile, and has strange stories to tell of adventures, and friendly passages with these lower brethren of mortality. Herb and flower, likewise, wherever they grow, whether in garden, or wild wood, are his familiar friends. He is also on intimate terms with the clouds, and can tell portent of storms."

from Robert Cantwell's Nathaniel Hawthorne — The American Years

Cantwell relates that Thoreau, who had independently arrived at the Indian method of paddling, attempted to teach Hawthorne, who proved a poor student. Cantwell's book contains many descriptions of the Concord landscape as well as other areas of New England, particularly Maine, based on Hawthorne's own "purposeful observations" and "exact descriptions of nature."

Being the Unpretending Life of Asa Sheldon — One Who Drudged for Gain


Yankee Dower is — dangerous for me to say — dreadfully proof-read, and filled with aggravating typos that confute with the narrator's delicious colloquialisms. Nonetheless, it's a good thing that John Steely, author of the forward, found this transcript of an old vanity memoir first published in 1862, and recognized its merit.

Asa Sheldon was born in 1788 in Lynnfield, Massachusetts. He was indentured by his parents at an early age to a neighboring farmer, a tyrant of a fellow who, however, meets his match in the young Asa, who has the virtues of a steady industry and wily cunning. The younger supplements his meager stipend cutting fagons for ovens and stovewood; he develops the skills of the archetypal Yankee trader, applying them to trades for everything being produced by the industry of the countryside: hops, cider, lumber, firewood. Striking out on his own, Asa drives cattle and trades oxen during the War of 1812; goes off in search of pigs in the frozen summer of 1816; trades for land and strips it of timber; goes bankrupt; and re-emerges as an excavator and builder of stonework for the Boston & Lowell Railroad.

There is something sublimey mechanical about Asa Sheldon, a quality that must have animated the social landscape observed by Thoreau. Sheldon gives credence to the myth of the Yankee as a race devoted to trading, industry and material gain. His aphorisms do however reflect the moral fiber we have also admired. Here is one adumbration among the many he has banded to the ages: "Let no aged person be discouraged about setting fruit trees. Set the tree if you have opportunity, and if you never eat its fruit, let the deed be ascribed to disinterested benevolence." — A.W.
Old Growth and Big Trees ARE Where You FIND Them

By Robert T. Lewett

Holyoke Community College professor Gary Belzou and I are in the process of conducting an "official" inventory of old-growth forests in the state managed by the Commonwealth of Massachusetts Department of Environmental Management (DEM). We are mapping the boundaries of each site, recording buffer areas, and building a multi-purpose GIS database for use by the state and by research institutions like Harvard University's Harvard Forest. We have until December 2001 to complete the work.

Our project will support the existing old-growth protection policy, promulgated by DEM, and pending legislation, and is motivated by our desire to provide a more permanent level of protection for the old growth. The Massachusetts Audubon Society is the driving force behind the legislation. Gary's and my mission is to make an intensive search to find any residual old-growth stands that heretofore were missed. As we map, we identify the major species growing on each site, establish formal study plots in the most significant sites, document exemplary features and specimens at all sites, take tree cores to determine average stand age, and rank the sites in terms of their relative ecological, historical, and aesthetic importance.

We are up to thirty-eight old-growth sites and will probably reach forty-five before our inventory is finished, possibly fifty. Neither of us views this project as a contest to bag old-growth sites, but given the amount of territory we have to cover, the predicted numbers are not only realistic, but virtually guaranteed. A decade ago, nobody knew, including me, who would have thought that so many old-growth sites would have survived in populous Massachusetts. By 1996, I thought I had found them all. However, to keep the number of potential sites in perspective, their combined area will likely not exceed 1,500 acres out of the over 3,000,000 acres of forested land and over 5,000,000 acres of total land in Massachusetts. A percentage of either figure, old growth in Massachusetts remains exceedingly rare. Even with this qualifier, the mounting number of individual sites is exciting. But how could so many old-growth stands have been missed? The simple truth is contradictory—they were and they were not. This statement requires explaining.

An old growth site on private property may be known locally to a few, but remain hidden from both public officials and determined old-growth sleuths for decades. Gary Belzou, John Krueger, and I were recently led to one of the best old-growth hemlock stands in the state, which none of us had previously seen. The stand is on private land and is not publicized. Facts are that a signing ceremony awaits us on our next visit to New Hampshire. Other examples could be cited. Some of these unpublicized old-growth pockets on private land are proving to be highly significant. The lesson I've learned is that the lack of publicity, either intentional or unintentional, has kept a surprising number of important old-growth spots hidden from us. However, the parcels are the lesser part of the story. There is a much larger, little tapped reserve of eastern old growth in non-commercial stands of stunted trees. The search strategies we've used to identify potentially lucrative areas and the search images we've employed to spot old growth candidates, at a distance, have missed an entire class of old growth—the non-commercial pockets lying on steep, dry slopes, on high mountain summits, and in wetlands. These places can be in full view of a major road. As a generalization, we've found-in-habitats. Many are slipping through the cracks to our society's preoccupation with wood products—a point of view that settled in the collective consciousness well back in early colonial times. As a result, we have a mindset of our ancestors induced a lasting bias toward forests as commercial resources and diverted attention from forested areas not suited to timber harvesting. This persistent bias was rudely shaken in the early 1990s when the "Lord of the Rings" himself, Dr. David Stahle, Director of the University of Arizona's Tree Ring Laboratory, predicted that a large acreage of non-commercial old-growth forest had survived intact, and strongly admonished us to protect it. Dave has a doctoral candidate Matthew Deines, who became the champions of the Cross Timbers community of western Arkansas and Missouri, and eastern Oklahoma. I fell in love with the century-old post oak communities on a visit to the Frank tract in Oklahoma in October 1995.

But most of us doubted that Dave's old-growth predictive models could be applied broadly, and certainly not to the settled Northeast. Dave suspected otherwise and he was right. The turnaround for me came upon my recognition of the stunted old-growth characteristics of the pitch pine community on the summit. I had read or heard of many, and not limited to the pitch pine community on the summit. The eastern slopes of Mount Everett harbor ancient hemlocks that Ted Zehry and I dated back in the early 1990s to over 350 years, yellow birch to approximately 200 years, black birch to over 250, and white pine to 250. We were surprised to find growing on the lower slopes some of the state's finest native tulip pops. I had read or heard nothing about these trees.

My familiarity with the eastern slopes of Mount Everett does not come from a casual visit or two. On at least a dozen occasions, I have followed the contours around Everett, frequently becoming entangled in the
thickets of mature mountain laurel. The physical difficulty of successfully penetrating the laurel is punctuated by thoughts about the recent outbreak of possibly surviving rattlesnake colonies. In the laurel every trunk and branch takes on the form of a snake.

A unique feature on Mount Everett is the East End Ponds, the largest upland body of water in the state. The pond is surrounded by a very mature forest, which lends something of an air of mystery to the surrounding region. One of the most striking things to note is that it has not been degraded with the usual network of paved roads, parking lots, unsightly towers, slum-like campgrounds, and God forbid, the bane of all noble mountains - downhill skiing. In fact, the mountain is as close to pristine as we have in Massachusetts. That great sister moun­tain to the north, Greylock, has not been as fortunate - all the more reason to protect Mount Everett. Yes, the Dome feels like holy ground and a growing number of us intend to see that it stays that way. Readers of the Notes can expect to be kept apprised as the controversy unfolds.

I would be remiss, however, if I left the impression that the charms of southwestern Massachusetts are limited to Mount Everett, however. Far from it. Bartholomew's Cobble lies in the long shadows of Everett and the eastern ridge line of the Taconics. The Cobble has long been recognized as a special place, botanically and aesthetically. It is one of the few places where the great white trillium blooms profusely in the spring. The Cobble is also known for the number of species of ferns growing on the limestone ledges. Currently, the Cobble is well protected and managed by the Trustees of Reservation, a Massachusetts land trust. For all its charms, though, the other side of the coin is that the specialness of the Cobble is known to be a lone, large tulp tree after which a hiking trail is named. However, on September 17th, John Knure and I measured a magnificent eastern white pine at the edge of a wetland. The cottonwood appears to be the new state champion for its species.

The tree’s statistics are impressive: 18 feet 2 inches in circumference, 120.9 feet to the high point of the crown and its huge crown spread. These are worthy num­bers for an eastern cottonwood any­where within the range of the species, as I confirmed that with my big tree partner in North Carolina, Will Blazoen.

While I struggled to measure the huge cottonwood despite poison ivy, New Year's 1900

stinging nettles, marshland, I thought momentarily of the striking difference in plant communities between the protected lowlands of Bartholomew's Cobble and the inhospitable summit of Mount Everett. When I left the Cobble, my thoughts turned to the interactions of we humans with raw Nature. Where do the Mount Everett pitch pines and the Bartholomew Cobble cottonwood fit in? Fulfilling our perceived materialistic needs, we would have little reason to value or protect the pines or the cottonwood. They grow in largely non-commercial habitats. Cottonwoods are not economically valuable trees, and though large pitch pines were historically valuable, I could literally touch the crowns of the charming, diminutive pines on Everett. But what enticing contrasts! The pitch pine dwarfs and the cottonwood, with crown roughly level with the top of a ten or eleven-story building - space is needed for both. The answer to valuing these treasures obviously lies in fulfilling not our physical needs, but our spiritual ones — in the end, the latter is the more important of the two.

Note: David Stillish’s predictions about old growth initially came to national attention with an article by Jim Spencer, “Is There a Virgin Forest in Your Neighborhood?” in American Foresters, Jan./Feb. 1993. Others working independently were reaching similar conclusions about non-commercial forests. Robert Mueller of Virginians for Wilderness, for example, wrote in a letter on November 24, 1989 in answer to a question about a specific ridge in George Washington National Forest, “This is a typ­ically xeric oak-chestnut type ridge forest. It’s sometimes difficult to tell if this type of forest is primary or secondary, unless the tree ages are known. The oaks . . . generally are stunted, thick-trunked and contorted and, if they escaped charcoal burning, frequently would have been rejected for timber use. I believe that there are probably 1-2 scattered tracts of such inconspicuous, almost primary forest on exposed ridges throughout the Appalachians. They probably escape the burning that destroys conspicuously large trees and more accessi­ble stands along streams and in caves and on gentle slopes” (Old Growth in the East: A Preliminary Overview (Caton, NY: 1990).

This article first appeared in Eastern Old Growth Notes (Fall, 1999, v. 3, #3).

EONL is the publication of the Eastern Old Growth Clearinghouse, POB 131, Georgetown, KY 40324.

Introduction by Brendan J. Whittaker, founding member of the Forest Stewards Guild.

As one with a four year university degree in forestry attained over 40 years ago, I’ve watched with dismay as the pro­fession increasingly has lost credibility with the public. What should we look for in a fore­most professional in our democratic sys­tem? Can a well-trained logger, for exam­ple, fulfill the role of forester?

As many in the profession believe, the most important condition is to be protected lowlands of Bartholomew’s Cobble and the inhospitable summit of Mount Everett. When I left the Cobble, my thoughts turned to the interactions of we humans with raw Nature. Where do the Mount Everett pitch pines and the Bartholomew Cobble cottonwood fit in? Fulfilling our perceived materialistic needs, we would have little reason to value or protect the pines or the cottonwood. They grow in largely non-commercial habitats. Cottonwoods are not economically valuable trees, and though large pitch pines were historically valuable, I could literally touch the crowns of the charming, diminutive pines on Everett. But what enticing contrasts! The pitch pine dwarfs and the cottonwood, with crown roughly level with the top of a ten or eleven-story building — space is needed for both. The answer to valuing these treasures obviously lies in fulfilling not our physical needs, but our spiritual ones — in the end, the latter is the more important of the two.

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The Failure of Modern Scientific Forestry, continued...

Forestry, page 26

The Failure of Modern Scientific Where We are Headed

value of many ecosystem components
form forest plans applicable to natural
individual ownership boundaries to
T o successfully implement ecoforestry,
large wilderness reserves as commons
provide enough space for evolution
and other processes to occur at rates
that are now destroying forest ecosys-
tems. Those who increase 'E' are usually
foresters who recognize that forestry is not practiced in a vacuum;
and that forest policies are related to
issues of politics, social justice, and
Earth's carrying-capacity for healthy human populations. We need foresters who are comfortable with the basic tenets of both the biological and social sciences, and who understand that forestry cannot be "fixed" without concurrently fixing other institutions.

We have two choices: business-as-usual forestry, with foresters passively functioning as servants to the forces that are now destroying forest ecosystems in the interest of commodity production; or creative ecoforestry, with foresters actively participating in the birth of a new type of forestry, one that will restore and protect ecosystems, and sustain human communities into the 21st century. We must each choose. Which side are you on?

Paul J. Kadysz is Associate Professor of Silviculture and Forest Soils at the University of Kentucky.

This opinion piece first appeared in the Spring/Summer edition of Distant Thunder, newsletter of the Forest Stewards Guild.

Where We Are Headed ‘Natural Disasters’ in the

by Mitch Lansky

A S THE LIGHT DIMS before the last solstice of the millennium, dark thoughts come to mind. I am writing at a time of booming economy, low unemployment, and low inflation. Yet lurking behind this wealth and well-being is a shadow of impending disaster. Indeed, along with the good economic news, there are other news items that leave an uneasy feeling.

There is plenty of such bad news to go around. Massive earthquakes, hurricanes, floods, droughts, international terrorism, domestic terrorism from extremist groups, white men gone berserk, or high-school kids gone berserk have been common news items in the last few years. Then there are the fears connected with our reliance on nuclear power (for which there are still no solutions to the waste problem), fossil fuels, toxic chemicals, genetically engineered food crops, or non-Y2K-compliant computer chips. And for many, there is a lingering fear that the success of the ever-growing, mega-global corporations may have its downside on our political power...

For this article I will focus on a more modest, but locally-relevant set of fears — fears connected with the potential for ‘natural’ disasters in the northern forest. I put the word ‘natural’ in quotation marks because ‘natural’ disasters are often partly human-induced.

FORMULA FOR DISASTER

A few decades ago, I came up with a formula to help explain why the spruce budworm was not simply a natural disas-
ter to be corrected with chemical pesticides. Disasters, such as floods, insect outbreaks, or weather-related crop failures all fit the formula: D = N x E x R

‘D’, of course, stands for disasters. ‘N’ stands for natural cycles of disturbance, such as floods, hurricanes, fires, droughts, insect outbreaks, or earthquakes. These events happen periodically, though not often in a predictable pattern. Society doesn’t consider such events disasters unless people or prop-

erty get in the way. If, for example, a river floods within its expected flood plain and there are no people or prop-
erty in the way, there is not much of a disaster.

‘P’ stands for the people or prop-
erty that do get in the way. When peo-
ple build on the floodplain, an earth-
quake zone, or the expected path of hurricanes, they are obviously at some risk. Since there can be long intervals between major events, people tend to become complacent, and ignore those risks. When the expected (though not entirely predictable) happens, it is a disaster.

‘E’ stands for the entropic influ-
ence of human management that makes natural systems more unstable — i.e., management that increases the frequency, size, or intensity of natural cycles. With our floodplain example, clearing of uplands or filling in of wetlands can lead to more frequent or severe floods. The result is that the floodplain expands, which sometimes outside the floodplain before find they are in it now. They and their progeny become ‘P’ — people or property in the way of a disaster.

Those who increase ‘E’ are usually not intentionally trying to bring disorder to the natural systems they are affecting. They are generally pursuing other goals — often economic. Their entropic influences are unexpected side effects. They are not even aware that they are managing floodplains — they think they are logging, expanding agriculture, creating housing, or developing the land.

CORRECTIVE AND DISTORTED SYSTEMS, A RELEVANT DISCERNMENT

Systems maintain stability (resistance to and resilience from disturbance) through corrective feedback. If you are too hot, you turn down the hot; if you are too cold, you turn up the hot. If it gets too hot, you turn up the cold (or turn down the hot). Eventually you adjust the faucets until you reach a comfortable temperature. For this negative feedback system to work, you need the ability to sense when there is discomfort and an ability to respond to this discomfort in a timely fashion.

This simple feedback system can get more complicated if there is little or no awareness of pain, or if the corrective mechanism is delayed or does not work at all. In the case of the water, if the shower is the water is hot, but for some reason you cannot experience pain, you will scald. Even if you are aware that you are hot, if the faucets do not work properly, you will still scald because you will be unable to cool the water.

If there is a delay in the water sys-
tem, you might find yourself too cold. So you turn the hot water faucet up, but you are still too hot. So you turn the cold water up even more — and then you get too cold. If you do this, you will have a fever. Then you get too hot again, and suddenly you are freez-
New Millennium

ing. This does not lead to a pleasant shower experience.

If someone has switched the labels on the faucets, you can experience what systems analysts call "positive feedback" when you turn up the cold (which is really the hot) which makes it get even hotter. Positive feedback loops lead to explosions. It is what keeps your voice from fading out at the microphone up to the speaker. Positive feedback leads to instability — infinite growth can not persist long in limited systems. Eventually the system collapses — which is a form of negative feedback to the system, rather than within the system.

There is another form of distorted feedback — when someone else is controlling the system and does not share the same goals as you. Let us say, for example, that there is a shower company who specializes in making you spend money, rather than to be comfortable or uncomforatable. When the water is on hot, he might try to persuade you to buy a special protective suit so you don't become scalded. You might get more comfortable, but you won't get clean. Or he might sell you medicines or bandages to treat your burn problems.

DISTORTED SOCIETAL PRIORITIES Too often, distorted types of feedback, as illustrated by our shower analogy, are those that influence our lives and threaten natural systems. Most consumers have little awareness of where the items they consume come from or where the waste goes. Without such awareness, the corrections are made within the system, not just by the system. Even when people become aware, they often have little power to fix the problems. The problems become so overwhelming that the public becomes overwhelmed by the changes, often the changes are too late, and the actions produce unexpected side effects.

Many of the problems are caused by activities that are at odds with maintaining stable social systems or ecosystems. When system instabilities make some sort of correction necessary, they are often forced by powerful companies protected by powerful governments. When the problem becomes so overwhelming that the public becomes overwhelmed by the changes, often the changes are too late, and the actions produce unexpected side effects.

A primary goal of the economic system is growth. Economic growth is, supposedly, a sign of "health" of the economy. Currently most consumers are not very highly valued by powerful companies protected by powerful governments. When the problem becomes so overwhelming that the public becomes overwhelmed by the changes, often the changes are too late, and the actions produce unexpected side effects.

CONCLUSION If this analysis is correct, we are headed towards increased risk of more resource exhaustion and destruction in a northern forest. Attempts to control these disasters will either increase the chance of greater severity later or create new, unexpected problems. To prevent this you need to be corrections of the system, not just by the system. These corrections would have to, at a minimum, do the following:

- Manage feedback systems based on an understanding of the integrity of these systems and a respect for what these systems can do (i.e., keep people out of inevitable harm's way);
- Learn to live within the limits of what these systems can produce;
- Develop a social structure that encourages correct responses to feedback and better abilities to correct negative impacts for which we are responsible.

To change our social/political system to meet these goals will be the challenge of the next century. If we do not change our direction, we will wind up where we are headed.
BAMBI-GATE?  
**MBNA TO DEVELOP DEERYARD, WETLANDS**

**ENVIRONS, GO! FAIL TO OPPOSE**

Did Maine Governor Angus King inappropriately participate in state permit decision favoring credit giant MBNA over deer & wild salmon?

_**Coastal Waters Press Release**_

**NORTHPORT, Maine** — Revelations of apparent improprieties in a recent state permit decision, dubbed MBNA versus BAMBI, that granted credit mogul MBNA International Corporation permission to build a 40 building private compound in the heart of Maine's largest coastal deer birthing/wintering yard, have raised inquiries as to whether on December 3rd, 1999, Maine Governor Angus King, or other senior state officials, personally intervened at the last minute in the formal 'Site Law' environmental decision-making process on behalf of the credit card giant.

Indeed, MBNA's 'affinity cards' which are VISA and MasterCards emblazoned with the logos of conservation groups, universities, professional organizations, and other non-commercial organizations. When the affinity credit card is used, the group with its logo emblazoned on it is given an automatic payment of up to one half of one percent of the total amount. Sierra Club, for example, has gotten more than 1.5 million dollars in payments since starting up its relationship with MBNA International Corp in the middle 90's. Critics wonder if the large sums have muzzled the Sierra Club's anti-sprawl advocates in Maine and Delaware.

**FILED FIOAS — Opponents, who have dogged MBNA and its supporters in government and in the NGO community since the early 90's when the company started its construction boom on the Penobscot Coast, filed formal requests under the Freedom of Access Law last week for the Governor's and Environment Commissioner's entire file on the MBNA permit decision, which has been widely characterized as a controversial decision that granted MBNA dramatic permission to build a 40 building private compound in the heart of Maine’s largest coastal deer birthing/wintering yard area — the nation's most diverse and conservation-conscious tourism and wildlife destination. The filing is a direct response to MBNA's request to withhold it's records as it finds them to be against outsider land speculators promoting urban sprawl and mass-employment call-center businesses — especially the MBNA International Corporation, the self-described as the nation's largest credit card issuer.

**BUYING MEDIA — In the middle and late 90's, with the rolling forests and fir-covered mountains of the northern coast of Penobscot Bay seen as a suitable place for urban sprawl, the MBNA International Corp spent considerable time building a sympathy campaign surrounding Environmental Commissioner Martha Kirkpatrick's decision that the buildings be removed if the buildings were to be located. The process came directly from the Governor's office. Angry coast promoters have filed formal requests with the Governor and the Environmental Commissioner for copies of their records relating to the MBNA Corporation's heavy sprawl proposal for an industrial port on Sears Island, which has carried out its thousands of telephone sales clerks who peddle VISA and MasterCard affinity credit cards around the clock.**

**STRIKE TWIST — The contest over whether the Ducktrap Mountain Deer-yard's character and function took a bizarre twist Friday, December 3rd 1999, when Governor of Maine State's Site Law permit only moments before it was signed, dramatically expanding the size of the project and deleting requirements that the developer must remove the 40 buildings and roads from the whitetail deer wintering area. Critics wonder if the buildings be removed if the buildings were to be located. The process came directly from the Governor's office. Angry coast promoters have filed formal requests with the Governor and the Environmental Commissioner for copies of their records relating to the MBNA Corporation's heavy sprawl proposal for an industrial port on Sears Island. The top down approach to environmental and social change by MBNA, which sells credit cards to enviro groups such as Sierra Club.**

**WHAT'S AT STAKE? — The fate of the Megunticook Coastal Region, a thirty mile strip of thickly forested mountains peaks framing the western edge of Penobscot Bay, boasting the USA's easternmost coastal deer wintering ground, (and overlooking the mouth of the famous famous Rock River, which is raising wild Atlantic salmon rivers in the USA), is raising the ire of coastal residents against the politically well-connected MBNA International Corporation, which has carried out major land development actions along this natural coast as it builds more offices, railways, and their support — in Maine state law and are wondering out loud whether, with the Maine Commissioner of Environmental Protection and the law courts will like additional public notice. "We asked the feds to come look at what the company proposed to put over before it happened," Huber said. "But US Fish and Wildlife Service and the US Army Corps of Engineers both withdraw their support for MBNA's proposal. (See below, it appears that they simply let the clock run out and now can shrug at the "Done Deal").**

"Pleas by naturalists to the Maine Board of Environmental Protection, calling on that decision-making body to "assume jurisdiction" over the case fell on deaf ears, as BEP chair Osmond Bonsey responded in a December 2nd press release. 'There were substantial irregularities in the process and in the permit language,' said Huber. "We intend to get to the bottom of this." "We don't believe for a minute the official story that the changes are routine corrections or minor-precision edits," he said. "Nor that the head of MBNA (or the chain media) are "bad people.""
To Hudson Strait in a Potato Boat

Northern Lights

By Desmond Holdridge, Illustrated by Edward Shenton. Capstan Press, 1998, Old Saybrook, CT: $15.95

BOOK REVIEW

Ed King has had a very close relationship with Labrador, and is now smart to MBNA's development project. As a result, he has written a recent memo to other Club leaders on the need for a new leadership at the Club. "It is an urgent matter," he wrote. "The Club must change in the project, or take stronger action to protect our natural Penobscot Bay coast." The Club may decide to sever its relationship with MBNA, assert or take other actions. Local residents say the Maine Penobscot Shore will suffer. They've been talked to twenty or thirty different vendors. In a retrofitted potato boat, the dolphins sail in Nova Scotia in May of 1926 and aimed their bow at the northern tip of Labrador. Adventure literature has a sublime sameness to it, summarized by the subtitle to The Hobbit: There and Back Again. Mountain explorers, sailors or others conceive a grand plan. They get into it; they get into trouble, or are otherwise subsumed into their surroundings. Usually someone emerges to tell the story. What makes for a good story, for readers whiling away a winter night in the cozy comforts of civilization, is the character of the protagonist as it emerges in relation to challenges of the environment. Northern Lights is distinguished for its anti-tone: although written by an older man lamenting his 18 years of old age and ignorance, it preserves the peculiar humor that must have sustained the three sailors, the high spirits that inspired an expedition of utter bravado and shrewdness. Care of the Labrador Wild, by contrast, the canoeing tale of 1905, involved careful preparation crossed by informed by the loss of a close friend. Civilization peters out as the Dolphin progresses northward down the coast of Labrador; a depression stemming partly from the influenza epidemic of 1919. The crew of the Dolphin encounters a mix of people with the varied bloodlines, commingled cultures and disparate motivations that the coast will bring. There is an American sharing edge of Labrador; lacked vital charts and equipment such as a barometer or back-up compass; carried no dinghy and instead blithely expected favorable anchorage; sold their motor while just setting out; repeatedly risked their lives in riding out weather; carried much larger than the wind and ended their adventure by being caught in a series of September gales. In fact, the Dolphin founders beneath them and they are picked off the slope in early October by a Grand Banks fishing vessel in a storm that claims bigger boats and more experienced crews. The outward journey's end, past Cape Chidley at the entrance to the Hudson Strait, brought this reward: "The end of things. Here was a place where you could actually look at the end of things and see it, a barren lump of frost-shattered rock without life, grace, hope, or even magnificence. In the fards a little farther south there was the same desolation, but there was grandeur that made you want to live in sight of it." Northern Lights offers a fascinating portrait of the Atlantic coast from Nova Scotia and Newfoundland to the tip of Labrador circa 1926. Rumrunners and alcoholic seamen abound, as does a fishing fleet still under sail. The Depression and several years of poor catches would soon wipe out the Lunenburg fleet, which Holdridge witnesses and describes as being a fishing shelter for summer fishing after returning from the "frozen bait" trip. Civilization petered out as the Dolphin progresses northward down the coast of Labrador; a depression stemming partly from the influenza epidemic of 1919. The crew of the Dolphin encounters a mix of people with the varied bloodlines, commingled cultures and disparate motivations that the coast will bring. There is an American sharing New Year's 1900

The Northern Forest Forum
Secretary of Interior Babbitt Bullied by Senator Cohen on Listing of Atlantic Salmon

NASHUA, NH - According to recently released documents, Secretary of the Interior Bruce Babbitt ordered the U.S. Fish and Wildlife Service (FWS) to violate federal laws and not give Endangered Species Act (ESA) protection to the last few remaining wild Atlantic salmon. The order came after Babbitt received a letter from then Maine U.S. Senator William Cohen.

The documents obtained through an ongoing lawsuit, state that after receiving a letter from Senator Cohen, Sen. Babbitt ordered the FWS to not offer ESA protection to Atlantic salmon population in Maine. According to the 2/8/95 letter, Cohen stated that the "disposition of this lawsuit.." Senator Cohen, in his letter, acknowledges this fact, but still calls on Babbitt to violate the ESA and not give protection to the few remaining Atlantic salmon.

Another document outlines the following: "...the ESA is very specific in that a scientific evaluation is the only basis for determining whether or not protection should be given to a species," said David Carle, executive director, Conservation Action Project and a plaintiff in the lawsuit. "Senator Cohen, in his memo by stating that it is "Senator Cohen, in his letter, acknowledges this fact, but still calls on Babbitt to violate the ESA and not give protection to the few remaining Atlantic salmon." Another document outlines the following: "...the ESA is very specific in that a scientific evaluation is the only basis for determining whether or not protection should be given to a species," said David Carle, executive director, Conservation Action Project and a plaintiff in the lawsuit. "Senator Cohen, in his memo by stating that it is

"ENOUGH SAID From a February 2000 article by Ted Williams, 'The Prairie Dog Wars,' on possible listing of the species as federally threatened: ""Once a group petitions to have a species listed as threatened or endangered, state congressional delegations resist on behalf of inconvenienced special interest groups. The states are then allowed to come up with a 'management plan' of their own that will supposedly make listing unnecessary. Meanwhile, the species continues to decline.""

"So, THINK YOU KNOW ECONOMICS? Test your Economic IQ!"

1. **Since the 1970s, thousands of loggers have lost their jobs due to mechanization. This means that there is:**
   - a) A large pool of unemployed loggers eager to find work.
   - b) No difference in the supply of workers.
   - c) A shortage of workers.

2. **The industry says there is a shortfall of loggers, justifying import of workers from Quebec. This shortage, which is 74% increase in worker productivity since 1973, means that inflation-adjusted logger wages are:**
   - a) Going up.
   - b) Staying the same.
   - c) Going down.

3. **When asked if they would pay loggers 10% more if it would bring in more workers and relieve the "shortfall," 70% of employers responded:**
   - a) Of course.
   - b) No.

4. **Loggers know that there is a shortfall of workers. After all, companies have to hire bonded Canadians as an emergency measure to relieve this shortfall. Knowing these conditions, loggers are telling their sons to:**
   - a) Become loggers because there is such a demand for them.
   - b) Don't be a logger. Find other work or leave town.

5. **The DOL report says that the influx of Canadian loggers is not having an adverse impact on wages of American workers. If there were such an impact, the program would be shut down. The study did say there might be an adverse impact on small areas of Maine, such as the St. John valley (which just happens to be the area where loggers have been protesting). One can conclude from this that:**
   - a) The loggers in the St. John valley are really benefiting, but just don't know it.
   - b) They might be hurt, but since there can't be a negative impact on Americans, they must not be Americans.
   - c) The impact, according to the DOL, is not significant enough to count.

6. **Spurce-fir and hardwood pulp are being overcut. Because their supply is decreasing, the amount of money available to loggers who cut this wood is:**
   - a) Going way up because the wood is more scarce, and thus more valuable.
   - b) Staying the same.
   - c) Going down.

7. **Logging is a demanding, dangerous job that requires long hours and long travel from home. It is also restricted seasonally. In light of the skills required, hazards, and demands, annual logging wages are:**
   - a) The same as paper mill workers or other industrial workers.
   - b) Lower than construction workers.
   - c) Higher than construction workers.

8. **Workers compensation costs have been declining over the last decade due, in part, to logger training programs. As a result of such cost saving (WC had been up to 45% of payroll), loggers are seeing:**
   - a) Increased wages.
   - b) No benefit.

9. **Loggers in northern Maine have few choices for land to cut on and few choices of mills to sell to. The markets for purchasing their services is referred to as a "monopoly," or "oligopoly." It is not characterized by competition. The big companies set the price. If the loggers could organize, they might have more bargaining power. Industry representatives argue that loggers can't organize because:**
   - a) The loggers like their current wages and status.
   - b) They are not employees, but "independent contractors." If the loggers organized that would violate anti-trust laws. The big companies believe in the free market and don't think it is right that a small group should control prices.

10. **Much of the land in northern Maine is owned by Canadian companies. Much of the wood is being cut by Canadian workers. Much of the wood is being sold by Canadian mills. Income, taxes, value added, and wages are being paid to the Canadian royal families. In the free market, wood is treated as an endowment of nature; in the public interest and federal government see this problem and respond:**
   - a) Acting in favor of American loggers and small saw mills by finding why this is happening and coming up with strategies to address the problems.
   - b) Recommend small changes to the bonded worker program because there doesn't seem to be a significant problem here.

**Correct Answers:** C, B, B, C, C, B, B, B.

**The Northern Forest Forum**

New Year's 1900
Stand aside, Emu-hooves Blanding's Blanding's turtle! Scram, Liatris borealis, New England Blazing-star! Vanasse, Jynx censdecens! You've history, old growth! Shore off, Lower forms of life! Homo ExxonMobilus, comin' thru!

Make Way for Me.
There are winners and losers in the evolutionary sweepstakes, and the All New Jeep Grand Cherokee® 2001 Sport Limited means the winner is You! You're an unstoppable juggernaut remaking the entire Earth's surface — in style! Let the Grand Cherokee be your arms, legs, and hypothermals as you swagger across that biological Finish Line to herbicidal, comatose, and supine Victory?

This Land is Your Land. — your personal playground, every inch of it! And the All New Jeep Grand Cherokee® 2001 Sport Limited lets you escape the Megalopolis and still bring most of its crap along with you. No place is off limits. Nothing is safe. Nothing will ever be the same. No place. Nothing. Ever.

Tough. Tougher. Really Very Obnoxious. Rugged good looks and the added power to exterminate entire species; the size and weight to fragment habitats and trash fragile ecosystems; fuel economy and emissions guaranteed to contaminate clear skies in a twinkling. Quest for Adventure. Explore the Parking Garage. Conger the Drive-Thru Window.

What You'll Want Next: Premium Amenities for Millenial Appetites.

- TRAXXAR® Satellite Navigation Autopilot: finds the last wilderness on the planet and puts you there — while you nose考! BioKleen® Vehicle Sterility System: suppresses odors, mellow, microbes, germs, insects, small-to-medium sized rodents, in or near vehicle — at the touch of a button!
- PLAXON® Heavy-duty Armor Plating: RoadRage® Weaponry and Intimidation package: FatMan® Missile Defense System.
- Alcatrex® dual-Zone Soundproof: Child Restraint: Bin.
- STIMULAXX® Hormone Injection Armor: feed the Reptile Brain Diet: egg, wheat, corn, tarantula, mold, ears, manic opinions, residues of innumerable, mecha-crust impulses. Or seek the Torpor within.

Lewis and Clark Would be Green with Envy. But they're dead. And who cares, anyway? Roll over, William and Meriwether! You didn't have asphalt, sprawl, and Burger King® — just a nasty hobo and 60,000 XTO buffalo. Today's All New Jeep Grand Cherokee® 2001 Sport Limited opens up virgin wilderness in comfort — effortlessly, thoughtlessly, on your backside.

Lean back. Vug out. Snuggle into the Huge Sloop® QuadraPron® King Size thermomolding leatherette-covered futon with divan; twiddle the 16-speaker Big Modoc® QuadraScreen® AN/PA/CP/57/cassette super-charger with Dolby® Natural Noise Elimination circuitry; adjust the Jambo Kwoatl® QuadraPly® Climate Alteration System to "tropical"; launch a lazy toe and prod the 22.9 liter (or "liter") 675-horsepower turbocharged Indy Abrad® Quadrun™ V18 engine into action. Watch out for that rare club moss! Ooh, too late — Sayonara, I'll fell ya!

Whoopee. Be bold. Be Big. Be dumb. Be life-threatening. Be bigger than, andUtility - what's that? This is about power, stuff, status and size. Size — did we mention size? Your size. Our size. America's size. Where are we going, Mom and Dad?

Life is Too Big for Brains.

Go ahead. Put your ego behind the wheel of the All New Jeep Grand Cherokee® 2001 Sport Limited. Trample the unrumpled, throttle the pristine. Touch the silence of continents. Make way for Me. And all my stuff. For us — and our stuff. All 8 billion of us.