

The Northern Forest Forum
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The Northern Forest Forum

Working for Sustainable Natural & Human Communities

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

Mid-Spring 1999

Volume 7 No. 4



ECOLOGICAL RESTORATION IN THE NORTHERN FOREST

Coyotes, Lynx, Moose and Caribou & Historic Abundances in the Gulf of Maine—

Special Section Starts p.13

Including a Northern Forest Centerfold!!

Plus: A Review of Maine's Major Land Sales by Jym St. Pierre

Starts page 23

The Northern Forest Forum

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

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

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Editorial Policy of The Forum

Editorial views expressed herein are those of the writer and not necessarily those of other contributors or other NARP projects. We welcome diverse submissions on the Northern forest and related topics. Please send all material to the address above. Please address letters for publication specifically to the editor.
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Past Abundance, Present Recovery, Future Wilderness

With the acceleration of forest land sales in the Northern Forest region and increased involvement of national conservation organizations and federal agencies in land deals, it is once more time to ask, what of Wilderness?

Is the goal of a system of ecological reserves across the region that are 1.) of ecologically significant size 2.) connected across the landscape and 3.) part of overall landscape approaches to biodiversity protection being advanced in recent sales and purchases?

We might ask of ourselves, the Wilderness advocacy community, have we made the case to citizens of the region that setting land aside from management and the intrusion of roads and vehicles, is a worthy goal—from ecologic, economic and spiritual perspectives? Many people—among them the longest most fervent critics of industrial forest practices—see in the advocacy for Wilderness an abandonment of a golden mean of a silviculture that works with ecological processes to maintain and restore biodiversity. Has the case for reserved lands been made for them? Most importantly to those of us who, through the pages of *The Forum* and elsewhere in our communities here, have argued the social value of forest preservation—do our local communities look to Wilderness as a benefit and supportable aim?

The most convinced adherents of Wilderness might be impatient with such questions and would just as soon proceed with a *realpolitik* that aims at presenting at some future date a *fait accompli*—millions of acres set aside and phooey to the critics. Others who press on issues such as forest herbicide spraying and low impact forestry projects regret the potential divisiveness of a Wilderness discussion. Our political establishment in Maine, New Hampshire and Vermont sees no gain in a Wilderness advocacy (with some exceptions on National Forests) and has attempted to close ranks around the concept of Working Forest (see last issue).

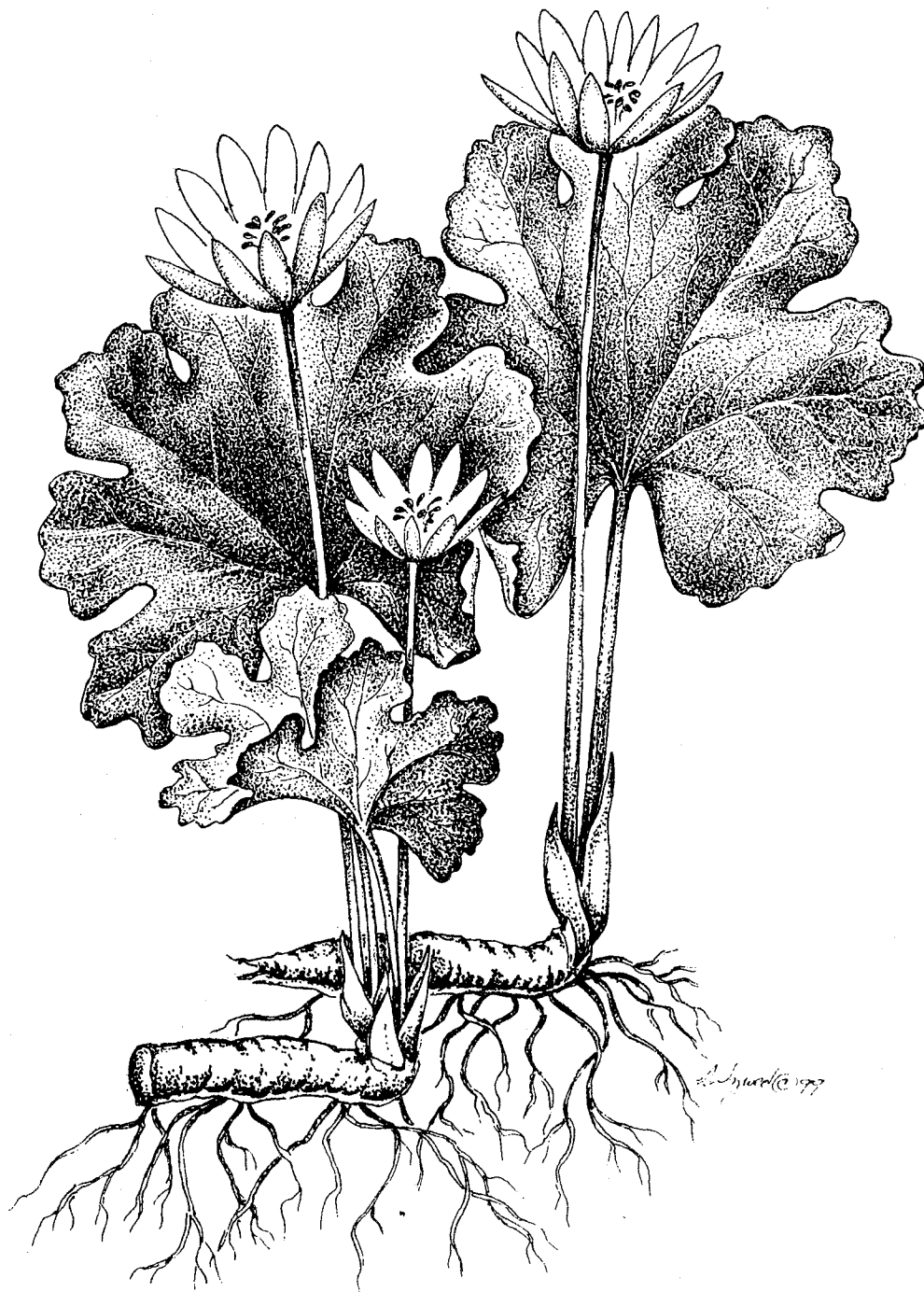
In the view of many who work through the pages of *The Forum* however, not only is the goal of a northern New England Wilderness system desirable, it is a goal we are certain friends and neighbors will come to support in the months and years ahead. We are certain of that because of our own personal paths toward embracing the ideal, and, on a more rational plane, because the many good reasons to support Wilderness

become more evident with ongoing development in the Region, the intensification of cutting, and perhaps principally the very resilience of Nature.

In this issue of *The Forum* we present some indigenous views of wildlife and its past, present and future in the North Country of Vermont and New Hampshire. The views are easily generalized to a wider view that might apply across the region and inform local discussion of such projects as the proposed Maine Woods National Park or the Champion land purchase.

Readers of the Vermont press are aware that an exchange of views has already occurred on the latter. This exchange has been partly regrettable, if only because it points up the lamentable lost opportunity to integrate Wilderness protection into a land purchase early in the proceedings of the Champion land deal. Wittingly or not, architects of the Vermont part of the purchase abandoned the Wilderness component to be pressed in the Statehouse where it would become easy meat for not just property rights ideologues but also an opportunity for representatives to strike populist poses.

Senator Elizabeth Ready, for instance, has stated in print that the conservation movement "has gone too far in excluding people from the landscape" in pressing for wilderness. This is odd, for the Senator's own Addison County district contains tens of thousands of acres of Wilderness. Former Fish and Wildlife Commissioner Gary Moore, who several years ago returned from Alaska a Wilderness convert and campaigner for Tongass protections, signed his name to an *ad hominem* attack on a wilderness proponent that



Cover Photo © Roger Irwin; a Champion Moose in the Nulhegan Basin in Vermont's Essex County.

PUBLIC WANTS MORE WILDERNESS,

(Montpelier)—The U.S. Forest Service has been sitting on a public opinion survey it commissioned, not knowing what to do with the results. The problem is that most people surveyed want more wilderness and less logging on the Green Mountain National Forest (GMNF), while the federal agency seems to want to build more roads and cut more trees.

Forest Watch, a Vermont-based environmental organization, got wind of the survey a few weeks ago and asked agency officials to release a copy for public review. "I was blown away by the level of public support for wilderness and the lack of support for industrial-scale forestry on the GMNF," said Jim Northup, Executive Director of Forest Watch and a former U.S. Forest Service planner. "It's easy to see why the agency was reluctant to disclose the findings. There's an enormous gap between what most citizens want from the national forest and what they're getting. The agency needs to heed the public's call and close the gap."

The survey conducted by Dr. Robert Manning of the School of Natural Resources at the University of Vermont, polled 1,500 Vermont households in the spring of 1995. A survey with similar results was completed last fall for the White Mountain National Forest in New Hampshire. "It is clear that New England residents value the national forest for many reasons, but non-material values, such as aesthetics and ecological protection, are more important than material values, such as economic development," said Dr. Manning.

The responses to several survey questions indicate a strong public desire for more areas of wild, untouched nature on the GMNF and less roadbuilding and logging. Very few people supported clearcutting and other types of industrial logging, especially if natural beauty or wildlife habitat were harmed.

For example: 82 percent wanted to ban clearcutting; 82 percent said logging should not hurt scenic beauty; 80 percent of the respondents wanted to protect remaining undisturbed forest; and 72 percent urged prohibition of logging if bear or other wildlife habitat would be harmed. Only 36 percent felt that management of the GMNF should emphasize timber and lumber products; and only 15 percent felt that



Bald eagle along the upper Connecticut River near its confluence with the Upper Ammonoosuc River. Cape Horn in background.
Photo © Roger Irwin.

jobs are more important than protection of endangered species.

"The results of this survey and a similar one on the White Mountain National Forest in Vermont should serve as loud wake-up calls to the U.S. Forest Service," said Northup. "Forest Service officials have two choices: either begin a major overhaul of the agency's management programs or ignore the wishes of the people they are supposed to serve."

Public land in New England is scarce and precious. Only 9 percent of densely populated New England is in federal and state ownership, while almost 25 percent of the lower 48 states is public land. And, one-third of the nation's population lives within a day's drive of the heavily-visited 350,000 acre Green Mountain National Forest.

The agency is about to begin the process of revising the management plan for the GMNF and needs to determine if there should be more wilderness or more roads and logging.

"There is no shortage of private timberland in Vermont. What Vermont and the entire Northeast lack is public wilderness—large areas freed from logging, roadbuilding and motorized vehicles and where people will find solitude, beauty and opportunities for hunting, fishing, hiking and other types of quiet recreation," said Northup. "Currently about 1 percent of Vermont is wilderness compared to the national average of 5 percent. New Englanders say they want more wilderness. Well, there is no better or easier place to provide it than on their national forests."

Forest Watch is a 1200-member environmental organization based in Montpelier, Vermont that works to reform public land management, promote sound forest practices, save and create wild forests, protect endangered species and monitor forest conditions.

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(802) 223-3216. ☉*

Future Wilderness cont, from page 2

pointlessly (and erroneously!) connected her to the Burlington drinking scene and made other stereotyped assumptions. While the forces of reactionary academia have turned the accusation of the abandonment of Reason on Wilderness advocates, clearly we are not the only folks who might be so indicted.

The Forum does seek to be a genuine forum for the discussion and implementation of ideas and values critical to the life and sustainability of our Northern Forest communities, human and wild. We do not favor a retreat from forthright and frank discussion.

Nor do we favor the imposition of values in an undemocratic fashion from whatever quarter. Reason may be only the finger pointing at the moon—so let's look at the moon.

In this issue that celebrates and examines several aspects of ecological recovery and past abundance, we invite you the reader to ask yourself, as the land deals proceed across the region, why not Wilderness?

—Andrew Whittaker ☉



Senator Elizabeth Ready with Vermont Land Trust president Darby Bradley. Sen. Ready says wilderness advocates go too far in placing man outside nature. Her home district has thousands of acres of wilderness. Photo courtesy of Gustav Verdeber.

NOVA SCOTIA RESERVES 700,000 ACRES

by David Lindsay

reprinted from ATLANTIC FORESTRY REVIEW
MARCH 1999

Under Canada's Wilderness Protection Charter, a network of representative ecological reserves is to be complete by next year.

COMMITMENT

"What we're looking for here in Nova Scotia," says deGooyer, "is to make good on the 1992 commitment to protect a representative sample of each landscape." That commitment is the Canadian Wilderness Charter, in which the Canadian Council of Ministers of the Environment, the Canadian Parks Ministers Council, and the Wildlife Ministers Council of Canada pledged to complete a network of representative protected places by the year 2000.

Dale Smith suggests a different approach to protection will be required to cover the landscapes not yet represented. In the Annapolis Valley, for example, there are two unique soil types that should be protected, but most of this region is owned privately. "We will be looking at private land stewardship," says Smith. A public education campaign will provide more information for landowners who may be interested in participating, and taxation incentives may be offered.

Smith does not expect this process to bring any of the controversy that occasionally arose when the Crown land sites were being chosen. "Where private land is involved, it's not so much a general public issue. It's at the discretion of particular landowners. And there will be various options, from absolute protection, to other forms of restricted use with easements."

Kermit deCooyer says resistance to the Wilderness Areas Protection Act was greatest among local residents who opposed designation of the Polletts Cove-Aspy Fault site in Inverness and Victoria Counties. "There were definitely some people in the area who were against it, and some of their reasons were pretty legitimate. There's a lot of mistrust up there because of what happened in the 30s with the (Cape Breton Highlands) National Park."

But protection of the Aspy Fault site involved no expropriation of property and no restriction of traditional land use. deGooyer believes fears that the act is part of a government scheme to turn the entire region into a park have largely been put to rest. He feels further progress in protection will require a pragmatic approach. "Hunting, for example, has a relatively benign impact. I think there's a lot of value in not getting hung up on the little things." ☉

On December 3, 1998, just before the Nova Scotia Legislature dispersed for Christmas, the Wilderness Areas Protection Act passed third reading in the House of Assembly. It designates 31 areas to be protected from development—a total of about 285,000 hectares (704,000 acres), all Crown land.

The sites within longstanding forestry lease areas have not been harvested, and now they never will be. Licensees have supported the act, which prohibits any commercial resource use, including mineral extraction and agriculture as well as forestry.

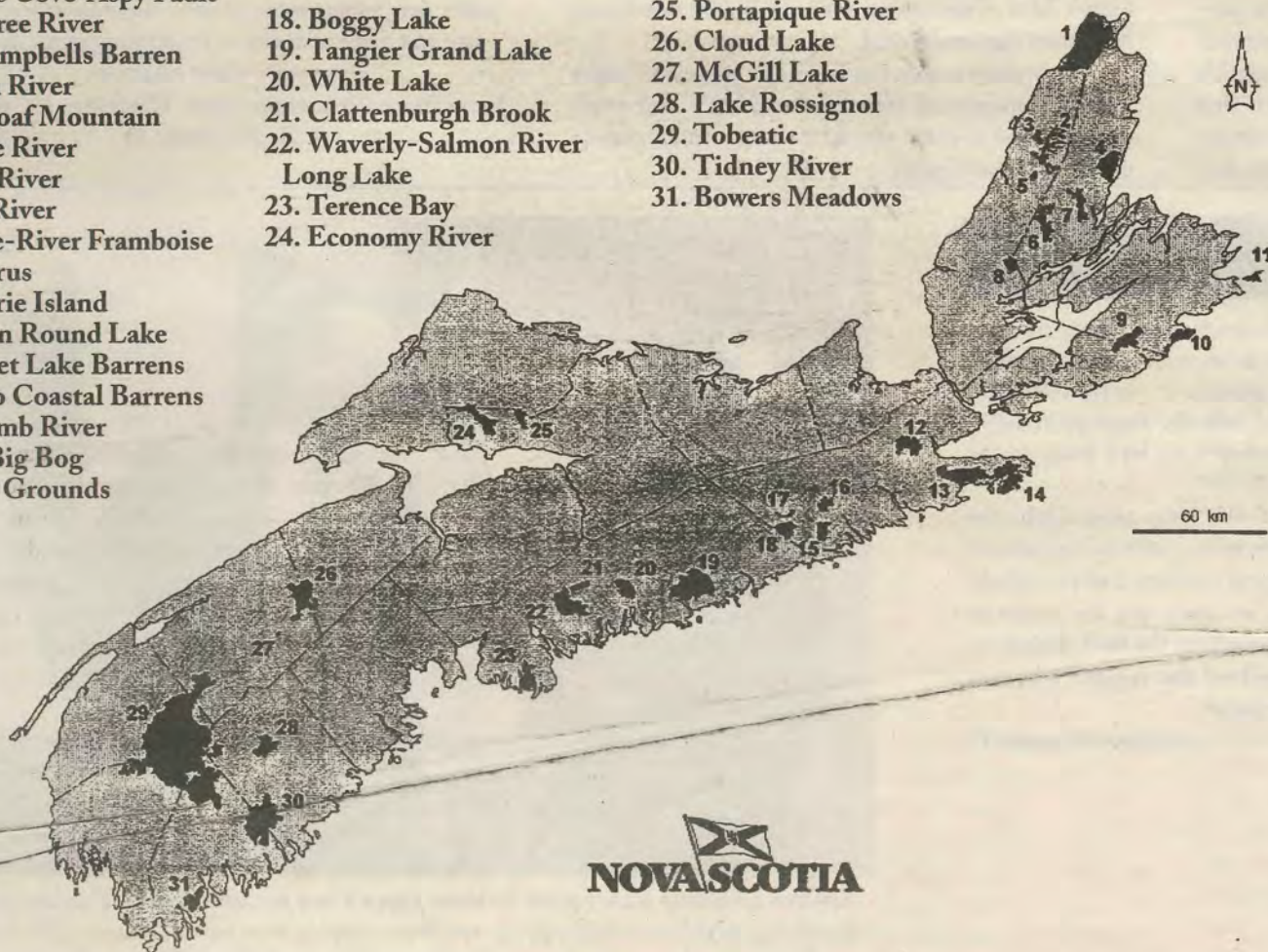
The areas account for almost 20 per cent of Nova Scotia's Crown land, or just over five percent of the province's total area. But most people familiar with the act do not speak in terms of percentages. "The areas were selected on the basis of how they represent the defined natural landscapes," says Dale Smith, Director of the Parks and Recreation section of the provincial Department of Environment.

Across Nova Scotia, 80 of these distinct landscape types have been identified. Kermit deGooyer, of the Halifax-based Ecology Action Centre, calls them "biophysical characteristics." The EAC was one of the environmental groups that formed a coalition with tourism and hunting groups to get the Jim Campbells Barren wilderness area back on the list after the government attempted to pull it. The site in Cape Breton's Inverness County contained some mineral claims that were bought by Regal Gold Fields, but a public outcry forced the government to designate it with the other protected areas, and ultimately the mining company got no compensation in its suit against the province.

deGooyer says the Wilderness Areas Protection Act is a big step in the right direction, though the province has more work to do. "There's probably half the landscapes that are represented in the 31 sites. We're taking a breather now, and we're happy to have the act. The public pressure will come back."

New Wilderness Areas

- | | | |
|-----------------------------|--------------------------|----------------------|
| 1. Polletts Cove-Aspy Fault | 18. Boggy Lake | 25. Portapique River |
| 2. Margaree River | 19. Tangier Grand Lake | 26. Cloud Lake |
| 3. Jim Campbells Barren | 20. White Lake | 27. McGill Lake |
| 4. French River | 21. Clattenburgh Brook | 28. Lake Rossignol |
| 5. Sugarloaf Mountain | 22. Waverly-Salmon River | 29. Tobeatic |
| 6. Middle River | Long Lake | 30. Tidney River |
| 7. North River | 23. Terence Bay | 31. Bowers Meadows |
| 8. Trout River | 24. Economy River | |
| 9. Middle-River Framboise | | |
| 10. Gabarus | | |
| 11. Scatarie Island | | |
| 12. Ogden Round Lake | | |
| 13. Bonnet Lake Barrens | | |
| 14. Canso Coastal Barrens | | |
| 15. Liscomb River | | |
| 16. The Big Bog | | |
| 17. Alder Grounds | | |



NOVASCOTIA

Map courtesy of the Department of the Environment, Nova Scotia.

Commentary

Public Forests: For Whom &

by Jim Northrup

It's no wonder the U.S. Forest Service has not told us about recent public opinion surveys completed for the Green Mountain National Forest in Vermont and the White Mountain National Forest in New Hampshire. The survey results create a real dilemma for the agency: most people expect something quite different from New England's national forests than what agency officials are providing. The vast majority of citizens want wild areas and low-impact logging: not more roads, noisy recreational vehicles and industrial-scale logging.

Almost 25 years ago Marion Clawson, a world-renowned scholar on natural resources policy, chose an age-old public policy question as the title of his pathbreaking book **Public Forests: For Whom and For What?** These important and complex questions still rest at the heart of every decision about public land acquisition and management, whether the tract is big or small, rural or urban.

Getting the answers right is extremely important in New England where we have less than one percent of the nation's public land and one-third of the nation's population living within a day's drive of it. Millions of American families increasingly look to our relatively small public domain for places to hunt, fish, canoe and enjoy nature. Are New England's legislators, public land managers, policy wonks and other 'experts' listening to them?

'Multiple-use management' is often promoted as the answer to the questions about for whom and for what our scarce and precious public lands are managed: provide all things for all people on every acre of public land and everyone will be happy. Seems simple, right? But, public land cannot provide for off-road vehicles and snowmobiles in the same places as wilderness; or logging in the same places as undisturbed, old-growth forests; or telecommunication towers in the same places as pristine natural beauty. Resolving these and other conflicting uses of public land requires careful thought, respectful dialogue and democratic choices.

Planners, economists and other experts are often called upon to decide for whom and for what public land should be managed. These experts use elaborate computer models and economic analyses to quantify the Recreation Visitor Days, Wildlife User Days, Benefit/Cost ratios, Present Net Values, Millions of Board Feet and other results of different land management options. While the experts and the numerical values they generate are useful, they can't answer the question without help from us: the public.

Our democracy is founded on the principle that the public is the expert on deciding what is

Protected Areas in N.B.

For What?

in the public interest. We don't allow a handful of so-called experts to elect our mayors, senators or presidents, and we must not allow the experts to decide how our public land should be managed. We, the people, should decide, and our legislators and public land managers should listen to us. That is part of the beauty of public land; it belongs to us and the agencies that manage it are ostensibly our public servants.

So what does the public say about for whom and for what New England's national forests should be managed? Two recent public opinion surveys performed by University of Vermont researchers and paid for by the U.S. Forest Service delivered several clear, consistent messages from the people of Vermont, New Hampshire and the rest of New England. These messages apply to both national forests, the soon-to-be-acquired Champion land and other large tracts of public land in New England.

An overwhelming majority of the people polled wants our national forests managed to provide undisturbed, unroaded and unlogged wild areas.

- 94 percent support protection of all remaining undisturbed, unroaded forests;
- 92 percent feel preservation of undisturbed forests is more important than timber jobs;
- 71 percent urge management of areas for protection of ecological processes; and
- 64 percent support establishment of more wildernesses (25 percent were undecided).

The vast majority of the people polled does not support logging our national forests, especially if the logging will compromise ecological protection, wilderness, fish and wildlife habitat, scenery or other important public values.

- 86 percent said clearcutting should be banned;
- 82 percent said logging should not diminish scenic beauty;
- 78 percent did not support emphasizing timber production on the national forests;
- 75 percent urged prohibition of logging if bear habitat would be disrupted; and
- 70 percent opposed setting aside endangered species protection to preserve jobs.

Private forests—90 percent of New England's forestland—can easily meet society's demand for wood. Our public forests should be acquired and managed to provide what private forests do not or cannot be counted on to provide—and what the majority of people have said they want: landscapes where nature will be allowed to reign and that provide wildlife habitat for sensitive species; and large areas free from logging, roads and motorized vehicles, where people will find solitude, beauty and opportunities for quiet recreation.

Responding to the public will mean: protecting roadless areas, reducing logging, prohibiting clearcutting, eliminating illegal off-road vehicle use, and creating wilderness on New England's national and state forest lands. Reforms like these are sure to raise protests from a vocal minority who benefit from current extractive uses of public land. So be it. Our political leaders and public land managers need to listen to and heed the respectful, democratic call of the people for whom our public forests are managed. ☉

Maintaining pristine sites will help us measure the damage

by George Fullerton

ATLANTIC FORESTRY REVIEW MARCH 1999

A series of 18 open meetings around New Brunswick has shown Dr. Louis LaPierre that there is considerable public interest in his report on developing a protected areas strategy for the province. The meetings in city centres have brought out crowds ranging from 300 to 700 people—not all of them keen about wilderness protection.

The strong turnout is partly the result of the forest industry's major media campaign against the protected areas strategy. Full page ads have announced that the plan will result in the loss of up to 800 forestry jobs and the closure of mills across the province. Most forestry businesses have provided their employees with background information predicting the strategy's impact on employment. The report proposes that industrial development—including road construction, forestry, and mining—would be banned in the areas.

Although many attending the public meetings are primarily concerned about economic hardship resulting from lost resources, there have also been quite a few presentations on the need to proceed with protecting large areas of the province.

Sampling Process

The province commissioned LaPierre late last winter to lead the development of a comprehensive protected areas strategy. The 158-page report also reflects the expertise of Dr. Graham Forbes, of the University of New Brunswick's Faculty of Forestry and Environmental Management and Department of Biology. Another contributor is Parks Canada forest ecologist Dr. Stephen Woodley.

The plan would protect a sampling of New Brunswick's unique natural landscapes. Proposed sites of various sizes are to serve different purposes, allowing different kinds of uses. For example, ecological reserves are fragile sites that contain rare plants; recreation is not allowed. In conservation areas, some recreational activities may be allowed, depending on the individual management plan.

The province will also be working with Nova Scotia, Maine, and Quebec to ensure that the Acadian forest region has protected areas representing all its eco-regions. For example, while the Upper Saint John River Valley is completely fragmented by settlement and industrial operations, Maine's Baxter State Park is in the same eco-region, and may satisfy that protected area requirements. Similarly, the Northumberland coast of Nova Scotia is too populated to allow acquisition of a representative area large enough, but New Brunswick's Canaan Bog could qualify to represent the coastal lowland eco-region.

Dr. LaPierre opened each of the public meetings by outlining how the province's seven distinct eco-regions were defined based on topography, climate, and soil char-

acteristics. He explained that the 12 candidate sites were established by directing a computer program to search for areas about 50,000 hectares in size, relatively free of roads, with a range of elevations and fairly homogeneous soil types. The strategy is actually targeting areas of about 25,000 hectares, which is considered enough to allow natural systems to function with minimal outside influence.

Natural Benchmarks

LaPierre said New Brunswick needs protected areas to serve as benchmarks to evaluate the effects of management on lands that are used for industrial production, to assess soil depletion on sites where industrial forestry is carried out, and to determine the appropriateness of 15-meter buffer strips on industrial forestry operations.

Areas that are protected will also continue to serve natural ecological functions relating to water supplies, and will maintain gene pools to ensure the survival of species. A tree like the Pacific yew, for example, may become a precious forest resource, as it produces the cancer-fighting chemical Taxol.

And of course protected areas will be a repository of natural heritage. LaPierre says current generations are the last in human history that will have the opportunity to set aside representative natural areas of significant size; if the proposed sites are not granted special status now, they will soon become fragmented by roads and other industrial activities.

Currently about 20 percent of New Brunswick forestland is managed with habitat protection as the primary goal. The management sites are designated as Deer Wintering Areas, Mature Coniferous Habitat, or for other special purposes. But these areas are not permanent; when their

effectiveness in providing habitat requirements diminishes, they will be harvested, and adjoining areas will be identified and established to serve the purpose. At present only about 1.4 percent of this area is designated for permanent protection from industrial activity.

The report recommends that each area be administered by a science advisory board and a local management committee. The board would be made up of representatives from government, academia, and the general public. The committee would have representatives from the area around the site, to help determine what sort of activities would be allowed on the protected land.

Assurances

LaPierre pointed out that recreation leases inside protected areas would be maintained. Hunting and fishing activities could continue as before. He assured meeting attendants that no expropriation of property was anticipated in the establishment of the protected areas, adding that the proposed boundaries were not chiseled in stone, and could be adjusted to exclude tracts of private land.

There is no consensus as to the number of forestry and other indirect jobs that will be lost, but the report admits there will be some. It recommends the government conduct a socioeconomic study to evaluate the costs of setting aside the areas.

LaPierre told his audience in Sussex that in addition to presentations at the meetings, he was getting plenty of feedback in writing, by telephone (1-800-730-8399), and via e-mail. Don Boudreau, an official with the New Brunswick Department of Natural Resources and Energy, also spoke at this meeting, stating that while public consultation is one step in the process of the Protected Areas Strategy, final decisions would not be made based solely on this. LaPierre is to review issues raised in the process, and will prepare his report for DNR&E this summer. ☉

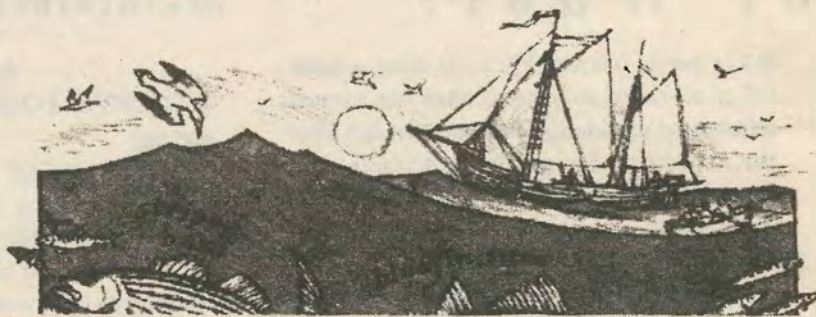
New Brunswick's Proposed Protected Areas

The 12 sites proposed for New Brunswick's protected areas strategy average 26,000 hectares. The strategy indicates that one large site should be chosen to represent each of the seven eco-regions in the province.

- Eco-region 1, The Highlands: N.B. Central Highlands (12,191 ha)
- Eco-region 2, Northern Uplands: Jacquet River Gorge (27,352 ha), Restigouche River (30,924 ha), Upsalquitch Forks (31,046 ha)
- Eco-region 3, Southern Uplands: Kennedy Lakes (30,184 ha), Long Lake (29,415 ha), Caledonia Gorge (2,455 ha)
- Eco-region 4, Fundy Coastal: Loch Alva (26,804 ha)
- Eco-region 5, Continental Lowlands: Loch Alva, Nerepis Hills (23,708 ha), Kennedy Lakes
- Eco-region 6, Eastern Lowlands: Armstrong Lake (26,860 ha), Canaan Bog (37,950 ha)
- Eco-region 7, Grand Lake Basin:

Currently about 20 percent of N. B. forestland is managed with habitat protection as the primary goal—only about 1.4 percent of this area is designated for permanent protection from industrial activity.

Coastal Waters Watch



PROTECTION FOR ATLANTIC COD HABITAT

by Ron Huber

*Coastal cod comeback predicted,
if fish nurseries are spared the drag.*

In one bold swoop, the New England Fishery Management Council has identified the need for, and is recommending designation of, the largest marine protected area on the Atlantic coast. The protected zone, stretching across the waters of three states, is seen as a critical step in restoring the destroyed groundfish schools of the Gulf of Maine.

Before an audience of fishing industry lobbyists, conservationists, academics, and state and federal agency officials, the New England Fishery Management Council's 'Essential Fish Habitat Technical Team' offered up a bold yet simple new approach to what has long been the most intractable part of the problem—deciding exactly what underwater coastal locations in the Gulf of Maine should be protected as nursery areas for juvenile codfish.

At the April 5th meeting in Peabody, Mass., Council members, conservationists and scientists heard a presentation on the final draft of the new 1999 report by Mike Petony, habitat analyst for the Council's Essential Fish Habitat Team. The report will be released later this month.

The report finds that "inshore waters are the principal habitat for young cod" and that "protecting it from anthropogenic effects by risk-averse management measures should improve juvenile survivorship." The report awards most but not all inshore waters of the Maine coast with the Council's highest rating: 'Habitat Areas of Particular Concern', or HAPCs. The report goes on to state that "... it may be necessary for state fishery agencies to restrict the use of certain fishing gears and practices."

The report also identifies a small area of offshore Georges Bank as an HAPC, an area that may serve as the hub for the proposed Hague Line marine wilderness spanning the federal boundaries between the US and Atlantic Canada.

The federal Sustainable Fisheries Act of 1996 requires the commercial fishing industry and its managers to define and locate the 'essential fish habitat' of the species they exploit, and take steps to prevent 'adverse impacts' to it, from either fishing activity or from land-based damage.

For several years it appeared as though the industry-dominated Fishery Management Council was avoiding taking action on this law. Traditionally, industry has considered the millions of acres of public submerged land and water that make up the Gulf of Maine as its personal fiefdom, with the billions of animals and plants living there viewed as a sort of living bank account.

No where has it been more obviously so than in the waters near the coast, where fishers, especially lobster trappers, have regarded the public sea as their personal property. Mapping and protecting 'essential fish habitat' in these waters was seen as a nightmare of deciding which fishermen would have to refrain from

disturbing fish on 'their' part of the bays and shallows dotting the Gulf of Maine coast, while others continued to exploit similar areas near by.

Like Alexander the Great confronted with the unsolvable Gordian Knot, the Council sliced through the labyrinthine, seemingly impenetrably complicated puzzle of deciding precisely WHERE of the thousands of square miles of the Gulf of Maine and Georges Bank to designate as protected juvenile cod living areas, by defining the most important habitat for juvenile codfish as simply:

"All areas of the perimeter of the Gulf of Maine, from the mean low water mark out to the 10 meter isobath."

That is, submerged coastal areas from the low tide line to 33 feet below sea level. These areas can be easily seen on nautical charts, as the light blue shallows near shorelines, surrounding islands and marking shallow undersea ledges. In the report, Council fish habitat analyst Mike Petony and his team explain the importance of protecting the shallows:

"The benthic community within this very narrow coastal zone has been found to be critical for Atlantic Cod, during a short period following metamorphosis from the larval stage, and prior to settlement to demersal habitat. It serves as a source of cod replenishment for seaward fishing areas because juveniles move into deeper offshore water as they mature."

The report reveals that when cod go through the change from planktonic larvae to juvenile finfish, they swim for the shallows. There the young cods spend the next year of their lives, hiding and feeding among the eelgrass, sea anemones, corals, sponges, worm castles, and other natural bottom life and structure, against the day they are big enough to join the Great School in its ancient migrations up and down the Gulf.

But due mostly to a one-two punch of pollution and overfishing, particularly in the post World War Two era, most of Maine's native coastal cod schools were completely wiped out. Restoration of native cod, it turns out is more complicated than one might think.

GENETIC CLEANSING

Like salmon and shad, codfish will always return to their historic spawning places each year along our coast, as long as they live. The destruction of those individual schools native to each part of each bay or bank, is permanent; in effect, the combination of the century-long dousing of the state's rivers and coastal waters with chlorinated papermill effluent, coupled with a spawner-directed cod fishery on the Maine coast over that same time period, has 'genetically cleansed' members of that species from Penobscot Bay. Improved pollution control by the paper industry, and a cessation of codfisheries, however, have not brought the cod back.

GENETIC SCOURING

In addition to the chemical bath and attacks on pregnant cod, the new report on 'Essential Fish Habitat'

(EFH) also shows that the very technology most commonly used to capture cod, heavy bottom trawls pulled across the sea floor, has destroyed much of the shallow water habitats of the juvenile codfish. Most of the eelgrass meadows, coral forests, worm castles, sea anemones fields and other 'biogenic' living landscapes native to the shallow waters of the Gulf of Maine coasts, fell years ago to the heavy mobile bottomfishing gear of drag and dredge.

The ending of ottertrawling in the inshore has not resulted in a comeback in the shallows, however. The continued scouring of these cleared areas by fishers using dredges to capture scallops, sea urchins and sea cucumbers, it appears, has kept our coastal waters free of complicated bio-habitat of the sort that would allow juvenile cod to survive and thrive there, even if they are replenished artificially by cod hatcheries.

THE 2% SOLUTION

By officially designating nearly all of the shallow coastal waters of the Maine, New Hampshire and Massachusetts coast as Habitat Areas of Particular Concern (HAPCs) for juvenile Atlantic cod, the New England Fishery Management Council's Habitat Team opens the door for conservationists to require Maine and the other Gulf of Maine states to enact measures to protect and restore juvenile cod habitat.

Foremost in the minds of scientists is protecting those areas from physical harm caused by bottom dragging trawls and dredges used by small boat fishermen for capturing scallops and urchins.

There is near-universal agreement among the scientific community, and grudging admission by fishers that drag-style fisheries to capture sea urchins, sea scallops, sea cucumbers, bay scallops, and other marketable organisms in shallow waters have a destructive effect on biogenic 'live bottoms'.

In particular, a phase out of certain several commercial fishing technology types that are known to destroy or damage the patchwork of seagrasses and stationary animals such as corals, sea anemones, barnacles, that serve as juvenile cod habitat.

The report **Habitat Annual Review Report, April 1999** also outlines a plan for Council-designated protected areas near the US/Canada border on Georges Bank, and recommends nine more offshore areas as candidates for protected status.

Critics noted however, that at the Peabody Massachusetts meeting, representatives of offshore fishing interests seemed determined to press for limited scallop drag fisheries even inside the offshore juvenile cod nurseries on Georges Bank.

"Its a long difficult process," said one observer, "to get this industry to realize that the Gulf of Maine and all its wild residents are the public's resources, not industry's private domain." The full New England Council will review the report at their upcoming April 22, 1999 meeting.

[note: To view maps of the proposed closed areas online, visit the New England Fishery Management Council website at www.nefmc.org. Scroll down, then click on 'Essential Fish Habitat Amendment']

BATTLING BIOINVASION IN MAINE

By Ron Huber

NARP's Coastal Waters Project has teamed up with downeast Maine coastal NGO organization, Quoddy Spill Prevention Group to encourage the state into creating a Maine Marine Invasive Species Council.

On February 3rd of this year, President Clinton signed an executive order directing federal agencies to work together to create Invasive Species Council to improve efforts to detect and destroy incoming invasive plant, animal and microbial species, and take steps to both forestall additional invasions and attempt to suppress recently arrive invasive species.

According to Randy Westbrook, US Dept of the Interior/USDA Invasive Species Liaison, (and also the APHIS National Weed Coordinator) the total impact of invasive species on the U.S. economy is now over \$123 billion per year. Ecologists consider invasive species to be the #2 threat to biodiversity, right behind habitat loss.

Dr. Randy Westbrook visited Maine on March 3rd to explain the development of the National Invasive Species Council, and efforts to create state invasive species councils throughout the country. During his presentation, he noted that invasive species are a low priority for most agencies, and existing efforts to combat them are seriously underfunded, fragmented, piecemeal, and duplicative. As a result of inattention to the problem, and expanded globalization of trade, invasive species have become a very serious threat to the world economy. In the U.S., he said, the problem is largely invisible to the average person because only 2% of the population are still engaged in agricultural production and/or land management.

Without new efforts to raise public awareness of the problem, and to foster increased interagency cooperation, the problem only get worse and worse with each passing year. In response, the U.S. Departments of Interior, Agriculture, and Commerce (NOAA), at the direction of the White House Office of Science and Technology Policy, are expanding their efforts to combat invasive species. According to Westbrook, these efforts will be designed to:

- A) Enhance the nation's capability of detecting all types of invasive species;
- B) Focus attention on invasive species as an important environmental and economic issue;
- C) Bring together new cooperators (federal, state, local, and private interests) that have not been generally involved in invasive species detection and management in the past; and
- D) Establish communication links between people who observe new or unknown species and those public officials in agencies that have responsibility for addressing invasive species."

Westbrook leads the Federal Invasive Species Task Force, and is traveling around the US working with federal and state employees and with public interest groups with 5 major goals in mind:

- A) establish a National Invasive Species Council;
- B) develop a National Management Plan for Invasive Species;
- C) facilitate interagency and multisector coordination in dealing with invasive

- species;
- D) develop a National Early Detection, Reporting, and Rapid Response System for Invasive Species; and
- E) identify federal legislative, regulatory, and funding priorities.

NARP's Coastal Waters Project attended the March 8th meeting with Dr. Westbrook which was also attended by a representative of the Quoddy Spill Prevention Group and by a variety of dry land botanists and weed specialists. Steve Cameron of the Maine Natural Areas Program, has been hired by the

funding for monitoring marine invasive species, NARP's Coastal Waters Project has begun training coastal citizens in the identification of "Watch List" marine invasive species, particularly the Asian Shore Crab *Hemigrapsis sanguineus*, and a seaweed-damaging tunicate organism (*Botrylloides*).

For more information on invasive species, visit the USF&WS website on the subject <www.anstaskforce.gov> or contact the Coastal Waters Project at (207)594-5717, by email at <coastwatch@acadia.net> or at their office at 418 Main Street, Rockland ME 04841. ☉

PENOBSCOT BAYWATCH BULLETIN

STOCKTON HARBOR— MORE SCIENTISTS MAY TAKE A LOOK.

Scientists to share talents to solve local clam mystery: Who killed the clams of Stockton Harbor?

Two and possibly more scientists involved in a major Penobscot Bay-wide study may be able to help work on solving the mystery of the disappearing Stockton Harbor clams.

Once Clam Capital of Penobscot Bay, Stockton Harbor's clams have vanished, taking with them the livelihoods of a large number of local families. Thirty years ago, the Harbor's standing sustainable "crop" of softshell clams was estimated at 19,600 bushels. The present crop: negligible. Replacement clams seeded by the Maine state government all died under sudden and mysterious circumstances as well.

NARP's Coastal Waters Project has enlisted the aid of several talented scientists to join in the hunt.

Dr. Brian Beal, Dr. Daniel Belknap and Dr. Huijie Xue are members of the Penobscot Bay Research Consortium, pulled together by the federal government, and administered by the Rockland based Island Institute, to give Penobscot Bay a thorough scientific going-over.

The three scientists will try to divert some time from their studies of the main body of Penobscot Bay to take a look at Stockton Harbor, one of the Bay's sub basins. For more infor-

mation about the Penobscot Bay research project check out the project's website at:

<http://www.islandinstitute.org/penbay/>

Dr. Daniel Belknap has offered to create a precise map of the entire floor of Stockton Harbor and its approaches, inch by inch, using the results from a cruise through the Harbor at high tide, with high quality sidescan sonar; Dr. Huijie Xue may be able to expand her Pen Bay water circulation study to measure, plot and time the Harbor's surface and bottom water currents. Finally, if an EPA Environmental Justice grant comes through, Dr. Brian Beal will carry out an experimental softshell clam growth study, seeding specific areas of Stockton Harbor with hatchery raised clams and comparing and measuring their survival and growth rates, by area of the Harbor.

Coupled with information unearthed by generations of area clam and worm diggers, an answer to the question of what is suppressing Stockton Harbor's clamflat ecosystem should emerge. Was it:

- *The Sears Island causeway blocking the historic flow of water between the Harbor and Long Cove?
- *Metals, acids and other substances eroding into the Harbor from the historic shoreline industrial waste dumps on the shore of Kidder Point?
- *Low levels of clam food species?
- *Something else entirely?

Stay Tuned. ☉

state to organize the Maine Invasive Species Council. Because his expertise primarily encompasses upland plants and organisms, coastal interests are asking Maine's Congressional Delegation to assist in securing funding for a separate (but equal) Main Marine Invasive Species Council.

As Quoddy Spill Prevention Group leader Steve Crawford put it, "We consider the Gulf of Maine to be highly susceptible to invasions of exotic species. The Gulf has been under very heavy fishing pressure, which has removed many of the dominant species from the ecosystem. Its bathymetry causes its boundaries to be well-defined (70% is surrounded by land) and the shallow banks at its mouth inhibit free water circulation from the ocean..

"These factors, combined with large ships emptying their ballast water along with thousands of exotic species into the port waters at Portland, Sears Island, Eastport, and St. John, NB (also Boston and Portsmouth) make monitoring of its waters and shorelines extremely important."

While awaiting a federal decision on boosted

'Marine Hogfarm' for Coast?

Opponents of a controversial aquaculture operation proposed for waters near Acadia National Park say they are unfazed by published reports that the company's supporters have threatened the families and employment of opponents of their operations elsewhere. The company is also charged with human rights abuses in South America.

Seaboard Corporation owns 40% of a joint venture that wants to install two enormous fish farm operations in the waters next to Acadia National Park's premier island holdings in Blue Hill Bay. At least one elected official elsewhere has complained he and his children were so "harassed . . . and threatened" by the company's supporters that he resigned from office to protect his family's safety.

The company is also one of the nation's largest industrial hog farm operators, and was recently fined more than half a million dollars by the US EPA for poor manure control, critics noted.

Opponents of the controversial project say that the sluggish waters of Blue Hill Bay near Acadia National Park will allow thousands of tons of manure to build up underneath the company's proposed fish pens, raising the risk of deadly red tides that could destroy the area's lobster and clam fisheries, and threaten public health.

"We're glad that EPA is keeping an eye on this outfit," said fish farm opponent Ron Huber, "but money won't bring back the lobsters and clams, or tourism, if this company kills them off with the manure build up in Blue Hill Bay that it is believed will happen if the plans go through."

Huber noted that state aquaculture officials recently refused to answer repeated inquiries at a public meeting as to whether they would hold Seaboard Corp, or its local front, "Atlantic Salmon of Maine", responsible if their Blue Hill Bay operations destroy local fisheries, or drives away tourists.

"I'm not surprised, frankly" Huber said. "Seaboard Corp is big, politically connected and ruthless, while the bureaucrats running Maine's aquaculture licensing operation have a history of fasttracking industrial fishfarm licensing. The head of Maine's aquaculture department has rubber stamped so many of these operations, that she probably has developed 'tennis elbow!'"

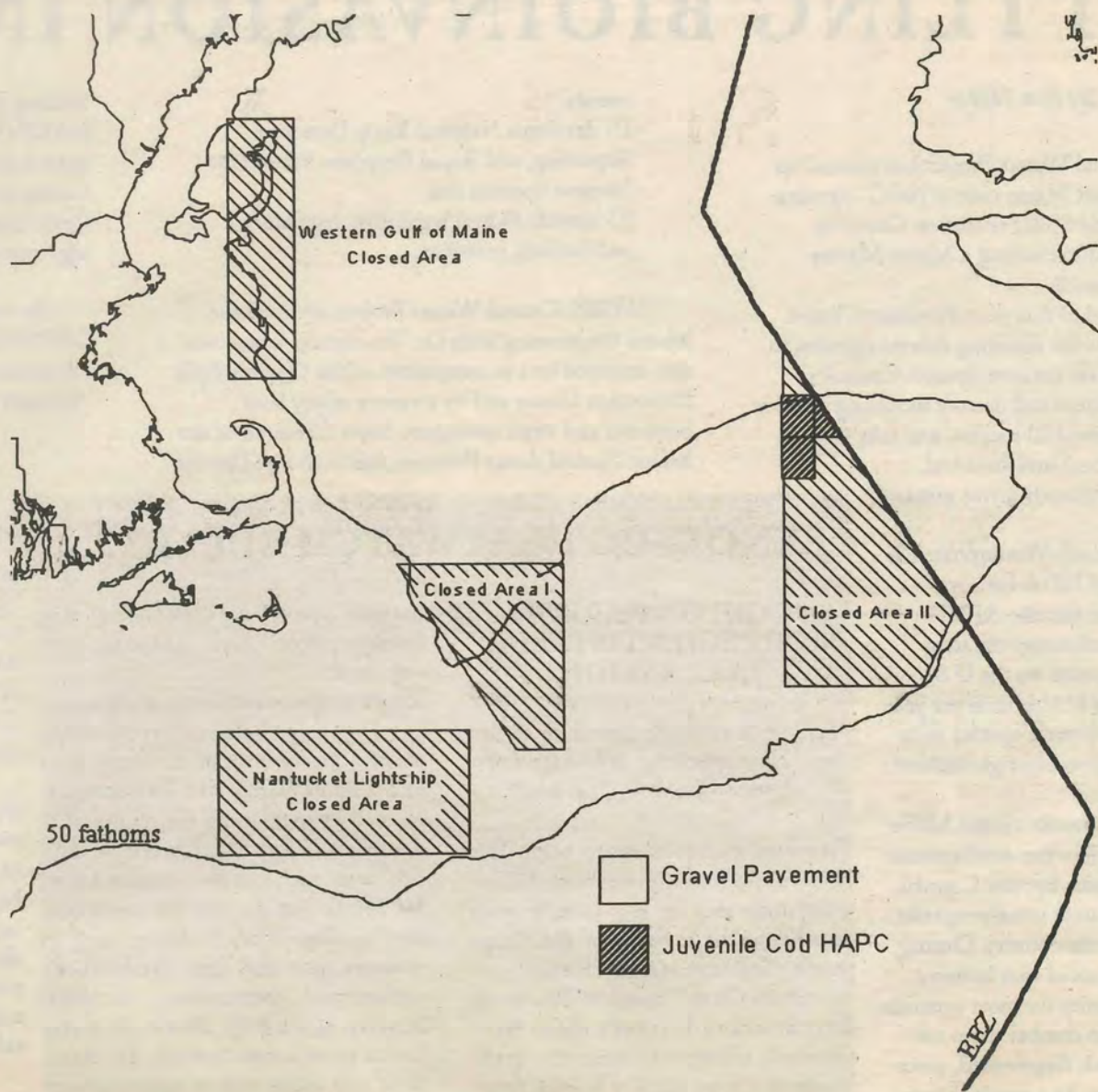
Seaboard Corporation has been charged by the Indigenous Environmental Network with human rights abuses in South America, including theft of land owned by the Kolla tribe in Argentina.

LINKS!

For more information about Seaboard Corporation check out these websites:

1. The "Hog Archive" of the Garden City Telegram newspaper www.gctelegram.com/Hogarchive.html has numerous stories about Seaboard Corporation's efforts to force industrial animal production on other states.
2. The Indigenous Environmental Network <http://oraibi.alphacdc.com/ien/issues.html> ☉

The EFH designation for juvenile Atlantic cod. This figure also displays the total "observed" range of juvenile cod, as well as the juvenile cod HAPC on the northern edge of Georges Bank.



Sea Web's Salmon Aquaculture Clearinghouse

To address the growing issue of salmon farming in North America, in late 1998 SeaWeb established an information clearinghouse on salmon aquaculture issues. We focus our educational outreach efforts in the states of Maine and Washington and the provinces of New Brunswick and British Columbia but analyze and include information from around the world. This salmon farming initiative will serve as a pilot project for a larger clearinghouse of information on a variety of ocean issues, which we hope to develop over the coming years.

As part of our educational efforts, we:

- Proactively distribute quality educational resources and information to targeted policy-makers, the media, and others involved in decision-making regarding salmon aquaculture;
- Research salmon farming activities and issues in North America and worldwide;
- Post pertinent electronic information through email lists and on our website;
- Catalog printed and taped materials, including gray literature; and
- Connect the media with experts and other appropriate individuals in the targeted regions.

The success of this project will largely depend on efficient and effective collaboration with organizations and individuals in each of the key regions.

You can help!

If you know of decision-makers (at all levels) and other influential people, such as members of the media, to whom we

should send educational materials to, please inform us. If you have suggestions for materials to include in our clearinghouse, please contact us.

If you want to learn more about salmon farming issues, please contact the Clearinghouse Coordinator directly. We offer a (free) concise overview of the issue, *Salmon Farming: A Briefing Book*, which, in 44 pages, provides a solid overview of the situation and includes helpful appendices.

SeaWeb looks forward to working with you to ensure that decision-makers have the best information available with which to base their decisions. We hope to work with you to ensure that our coastal waters, watersheds, and communities remain healthy and productive.

For further information or to help out, please contact:

*Bill Mott, Coordinator, SeaWeb Salmon Aquaculture Clearinghouse
360 Victoria Ave., Suite 203 Montreal, Quebec H3Z 2N4
Phone: 514/487-4336 Fax: 514/487-4608 Email: BillMott@compuserve.com*

SeaWeb is a public education organization designed to raise awareness of the ocean and the life within it. Through public polling, we monitor the changes in awareness of and care for the ocean. We also sponsor and produce educational programs and announcements on radio, television, and film. With our small but dedicated team of scientists, researchers, educators, editors, and communication specialists, we are creating an independent ocean information center that reaches out to the media, to government officials, and to the interested public. ☉

Establish Coastal Protective Associations

Dear Editor,

There are no undisturbed areas in Nova Scotia, no land where humans have not left their imprint, no wilderness. I would like to avoid the same fate for our coastal environment. Aquaculture is gearing up to put the coastal environment to 'work'.

Facing the possibility of an aquaculture site where I kayak every summer in Caribou Harbour, I went to the web site for the NS Department of Fisheries and Aquaculture. I found out a number of interesting facts.

As of December 1997, there were 369 aquaculture sites in NS (both finfish and shellfish), and 11% of the production was blue mussels and American oysters. The government is committed to develop the aquaculture industry, and they aim for a 10-15-fold increase in aquaculture production over the next 15 years! The government also provides a lot of assistance to the industry, in terms of research, field extension agents, veterinary help, education, etc. As well, the NS government "will undertake a public awareness program, fostering a positive image of aquaculture . . ."—spending our money to place ads in newspapers, etc.

It is interesting to note, that the gov-

ernment aquaculture site does not carry information about possible NEGATIVE effects of aquaculture on the environment; about illnesses associated with aquaculture products (be it in fish-farming operations, or from consumption of contaminated shellfish); etc. It's all positive PR!

In order to protect our coastal areas, we need to create some kind of "Coastal Protective Associations" which will look after both human and environmental concerns. There is an Aquaculture Association of Nova Scotia to look after the interests of the aquaculture industry. Who is looking after our interests?

One important issue is the question of the privatization of the Commons—a public area becomes private domain where corporate interests have exclusive rights, an industrial site where neither people nor wildlife have access as before. The coastal environment, which attracts many people to Nova Scotia, and is the common heritage of all, is being partitioned off for a few special interest groups.

**Helga Hoffmann
Green Web
R.R. #3, Saltsprings, NS**

Setting Goals for Forestry

Three Strikes, You're Out:

The story of LD 1866, An Act to Reform the Maine Tree Growth Tax Law

by Mitch Lansky

Back when the public was agonizing over basal-area requirements in the clearcut referendum and the Compact, I asked myself, "Is there a better way to make policy than this?" I felt that it was inappropriate to force legislators or the public to debate technical details of forest practices that they did not have the background to understand. The results of this debate confirmed for me the flaws in this approach. Millions of dollars were spent on advertising campaigns to convince voters with sound bites and slogans. In the end, the public was more confused than ever.

I reasoned that the public can vote for goals, such as sustained yield, even if they do not understand the technicalities. They can vote for a process to interpret the goals and set standards. They can vote for an audit to ensure that landowners are following the goals. One does not need a Ph.D. in forestry to debate these issues. These are political, not technical issues. Technical issues can be dealt with by those with technical expertise, but in a public process.

Because I was not happy with either of the referendum bills, I felt I had a responsibility to come up with something more constructive, rather than just complain. So I did. I looked at the Maine Tree Growth Tax Law and saw, in the preamble, that the intent of the law was to encourage "sustained yield" and "forest improvement." The flaw was that the law assumed that by lowering tax assessments for forest land, without asking (let alone requiring) landowners to live within their biological budgets, that landowners would do so anyway. This is like lowering the excise tax on some cars in the expectation that drivers will drive more safely—without requesting drivers to do so or defining what "safe driving" means.

Establishing Goals & Process— Not Prescriptions

I had data from a number of sources that showed that some landowners were abusing the program. They were highgrading, liquidating, overcutting, and even subdividing, but the land was still under Tree Growth. The public was paying for this in a number of ways. There was a tax shift within the town, there was a tax shift from the General Fund to reimburse some towns. And there was a tax shift when management practices lowered valuations by shifting species types from softwood to mixedwood to hardwood.

I assumed the public would resent paying for such tax shifts for landowners abusing the program. I wrote a bill that did three things:

- ask land managers under the Tree Growth program to meet certain goals in the management plan:



SDS.

- sustained yield,
- stand quality maintenance or improvement,
- adequate stocking, and
- reduced reliance on chemical pesticides (which is state policy);
- have the Department of Conservation, through a public process, establish the technical meaning of the terms and set any needed standards; and
- set up a random annual audit to see if landowners have a legitimate plan and if the logger is following the intent of the plan—this would imply minimizing residual stand damage.

The bill would not ban any forest practices. It was not a set of mandatory regulations. People who wanted to liquidate still could—but the public would not shift their taxes to benefit such landowners. These landowners would have to pay a penalty.

Reaction to LD 1866

The bill I wrote was briefly mentioned in 1997 in an editorial in the *Bangor Daily News*. It has never been mentioned again in any news media. There has been a media blackout on both the bill and the conception behind the bill. The Agriculture, Conservation, and Forestry Committee of the legislature found ways to avoid any debate on the bill by clustering it in with others and giving the public a limited time to comment on all the bills at once. The public (except the few who saw fact sheets) has no idea the bill existed. So much for the better mousetrap theory.

Paul Volenik, the legislator who first introduced the bill, introduced it

again this year. I made some changes to eliminate all prescriptive language, including the method for determining sustained yield. The bill, LD 1866 came before the Taxation Committee, this year, on April 5th. Once again, there was no media coverage despite

letters and phone calls to alert the press. This time, however, the bill was specifically discussed in the hearing. The committee room was full of industry lobbyists who made blistering attacks on the bill, claiming that, for example:

- Landowners under Tree Growth are already accountable because their plans have to be approved by a registered professional forester and town selectmen can see the plan;
- The bill is too prescriptive and won't allow managers to do good forestry;
- Having to cut less than growth will lower allowable cut to 17% below sustainable levels and lead to the forest getting old with slower growth;
- The bill would cause a decline in jobs;
- Landowners need to use more herbicides to be productive, the bill would thus lower productivity.

At the Statehouse with all the Boys

If landowners are accountable, however, how come the equivalent in area of Baxter State Park is being liquidated or potentially liquidated (according to a recent Maine Forest Service Study) every three years? Foresters are not required to have sustained-yield plans nor loggers to follow the plans. The abuses are documented.

How can the bill be too prescriptive when it consists of goals? If the bill won't allow "good" forestry, does this mean that "good forestry" requires landowners to overcut, understock, highgrade, and do excessive stand damage? How can a forester model impacts of a goal for which no standards have yet been developed? The

bill does not say how the cut/growth balance will be determined—that would be done in a public process in which these landowners could participate. It doesn't take a genius to figure out that if a landowner continually cuts more than growth, inventories will decline. Overcutting and liquidation will, over time cause a loss of jobs.

The committee did not get to hear responses to the accusations. I went first, followed by representatives from Maine Audubon Society and Natural Resources Council of Maine. The rest of the testimony came from opponents.

Something different happened at this hearing, however. Jim Robbins, president of the Maine Forest Products Council, announced that he was not opposed to the audit. Then Don Mansius, acting director of the Maine Forest Service, stated that his agency was neither for nor against the bill. He went further to say the MFS did not want to upset the stability of the Tree Growth program by adding new requirements, but his agency favored an audit. The audit would not be based on the new standards, but on existing standards. And landowners certified under the Forest Stewardship Council would be exempt from the audit.

This last bit of news caused a stir in the room. Soon after the hearing it became evident that industry had expected that their Sustainable Forestry Initiative would be exempt from the audit. Some industry representatives were not well pleased by the direction things were headed. The Maine Forest Service, however did not accept self-defined standards as adequate for public accountability.

In the work session, later that week, the Taxation Committee did not discuss LD 1866 any further. It voted the bill down unanimously, quickly. They transferred the audit part of the bill, however, to LD 1475, a bill sponsored by Chelli Pingree, Senate Majority Leader. The committee approved this bill by the barest of margins.

De Ja Vu All Over Again

Now the full legislature will vote on a bill that consists of a random annual audit to see if landowners are following current laws (that allow overcutting, highgrading, liquidation, excessive stand damage) with companies like Seven Islands and J.D. Irving exempted. The MFS might look at stocking and quality in the audit, but the bill doesn't say they have to. Industry, and its allies, might lobby very hard against the bill and either kill it or weaken it. We shall see. But this is the way laws are made. I thought the readers would like to know. ☉

How'm I doing?

The State of Maine's Forests

by Mitch Lansky

The draft report of the Maine Forest Service on the present condition and future direction of Maine's forests and forest policy suggests that while the industrial forest paradigm may not be dead neither have the alternatives come to life—yet.

Edward Koch, former Mayor of New York, used to walk the streets of the city asking his constituents, "How am I doing?" Now the Maine Forest Service wants to know the answer to this question concerning the Maine woods. To answer requires knowing the condition of the forest in the past, the condition of the forest in the present, and whether the changes are in a favorable direction. It also makes a big difference what criteria are used to determine these changes.

Establishing a desired direction and choosing criteria and benchmarks to measure progress in that direction are the first steps towards creating forest policy. This is not to say that the Maine Forest Service lacked a policy in the past. It was a policy by default in support of the status quo. Indeed, in the not-too-distant past, the director of the Maine Forest Service used to receive his salary from the big landowners. Although directors of the MFS are now public employees, there has been a tendency for them to come directly from industry, and upon leaving the job, to go back to industry. The last director, Chuck Gadzik, is now working for J.D. Irving, for example. John Cashwell, a previous director, is working for Seven Islands. Ron Lovaglio, the commissioner of the Department of Conservation, came to his position from International Paper Company. Even while commissioner, he has also been on the board of directors of the Maine Forest Products Council.

In late January, the Maine Forest Service released a draft report of *The State of the Forest and Recommendations for Forest Sustainability Standards*. In it, the MFS briefly discussed forest practices issues such as harvest practices, highgrading, liquidation, intensive management, pesticides. It also looked at timber supply issues, including cut/growth ratios, species trends, and quality trends. Very brief sections dealt with fragmentation, water quality, wildlife habitat, public access, soil productivity, and aesthetics. The document also listed some of the state policies directed at these forestry issues.

The legislature last year directed the Maine Forest Service to "establish a process to assess forest sustainability." To do this, the MFS has attempted to:

- 1) Define a goal;
- 2) Identify a measurable indicator(s) for this goal;
- 3) Set a standard of performance or status for the indicator; and
- 4) Outline how this standard will be tracked, measured, or assessed.

How Did They Do?

The process set up by the Maine Forest Service has potential to lead to much improved results if honestly followed. The draft report, unfortunately, is not always forthright. The recommended benchmarks are insufficient for assessing key silvicultural trends. The report also puts needless 'spins' on some issues rather than give the legislature straight reporting.

If the combined landownerships are to show progress in meeting forestry benchmarks, this can only be done if individual landowners are meeting the benchmarks. The Maine Forest Service, without an adequate discussion of the subject, editorializes against

changes in the Tree Growth Tax Law that would require minimum standards for participating landowners. Landowners need to have management plans anyway, so why not require that the plans are meaningful? Without such standards, landowners can get tax breaks for liquidation and highgrading—both of which the MFS admits are neither in the best long-term interest of the forest, nor helpful to achieving benchmarks. The MFS does not come up with a credible alternative to preventing activities that are currently both legal and profitable.

Good forest policy must be integrated. It must include not only silvicultural goals, but also ecological and social goals. The State of the Forest draft does not do this. It leaves ecological goals to later. There are no benchmarks, for example, concerning old growth, riparian zones as wildlife corridors, ecological reserve systems, or late-successional interior habitat. This opens the possibility of overestimating available timber supply. While the MFS did discuss 'fragmentation,' it confused fragmentation of large ownerships with fragmentation of interior wildlife habitat—which are surely not the same thing. Protecting large landownerships is not equivalent to protecting forest ecosystems.

The Maine Forest Service in arguing against changing the Tree Growth Tax Law, invoked a need for stability of policy for landowners. The MFS, however, did not see a need for stability for labor or local communities. The document did not address export of raw sawlogs, import of Canadian labor, or domination of markets and communities by absentee (and foreign) companies. This first draft, therefore, raises the question of whom state policy is supposed to primarily benefit.

Happy Spins

While there is much useful background information, the MFS frequently indulged in unnecessary spins to cushion the full impact that more accurate reporting might have had on landowners. For example, the document uses the term 'selection harvest' to refer to any cut that isn't a clearcut or shelterwood cut. Defined this way, in 1997, according to the MFS, 75% of acres cut were by 'selection.' The truth is that landowners use true, silvicultural 'selection' on very few acres. Most of what the state is calling 'selection' are diameter-limit cuts, single species cuts, or simple highgrading operations.

Highgrading and liquidation cutting are approaches for which there is surely much gray area. The MFS chose to use arbitrary cutoffs that made it appear that these practices affect a small, but still disturbing, proportion of harvested acres. A state study of forest practices 1991-1993 found that 16% of acres cut rated below '3' (on a scale of 1 to 5 for 'harvest quality'). If the bar is raised just a bit to '3.4' or below (low-marginal quality), this would include 45% of all harvested acres—a statistic that is not all that flattering.

In discussing intensive management, the MFS expressed less concern for "[h]igh-yield practices that utilize native tree species, and are managed for rotation lengths approaching natural stand rotations (60 years or more)" This describes some of what J.D. Irving is doing at Black Brook in New Brunswick. Groups like the Sierra Club, however, are not buying in to the idea that 60 years approaches 'natural stand rotations' (which can be hundreds of years for red

spruce, for example). They are even less impressed that planting near monocultures (supported by herbicide and insecticide spraying) of black spruce on sites where it is not normally found is somehow worthy of 'green' certification.

With herbicides, the Maine Forest Service used a familiar forest-industry argument: "[f]orest management applications of herbicide should be viewed in context with use on lawns, golf courses, utilities, and agriculture." This classic "why are you picking on me when others are doing worse" argument is intended to deflect responsibility. Such a statement does not demonstrate a strong commitment to follow state policy to reduce reliance on chemical pesticides. Indeed, the MFS does not mention this policy, even though forest landowners are spraying more than 40,000 acres a year with herbicides to 'control brush.' Foresters and farmers and golf courses can all reduce their reliance on pesticides. There is no reason for an either/or approach.

Another happy assumption (favorable to large landowners) is the MFS's recommended indicator of the percent of land under forester supervision. If foresters had higher requirements for their management plans, and if professional foresters lived out their code of ethics, and if there were serious self-policing to higher standards, maybe this indicator might mean something. The reality is that an MFS survey of cutting in 1991-1993 showed that nearly 1/3 of the most highgraded acreage were on industry lands. All industry land is, presumably, under forester supervision.

The MFS presented 'broadly accepted findings,' of the Maine Forest Biodiversity Project. The first is that "Present information does not indicate a biodiversity crisis in Maine . . ." This statement was based on the number of species lost in Maine compared to places like Hawaii. When asked, "Is there a problem with biological diversity in Maine?" the scientists who wrote *Biological Diversity in Maine* replied, "YES, THERE IS A PROBLEM." The MFS neglected to mention this.

The Biological Diversity in Maine report showed:

- Loss of plant and animal species;
- A significant proportion of plants and animals that are rare, threatened, or endangered;
- High numbers of exotic plants and insects;
- Deficiencies in old-growth habitat for all forest types,
- A disturbing proportion of fresh water ecosystems that are dramatically altered from historic conditions; and
- A lack of adequate protection of the range of ecosystem types.

The MFS, repeatedly brought up the Shifting Mosaic of the Manomet Bird Observatory, implying that the biodiversity problems are being solved. "Landowners and managers are finding the common threads of both protecting habitat and promoting timber productivity in many settings across the State." While Manomet's research may be yielding important information about habitats and species, the Shifting Mosaic is just a hypothesis (that has been criticized on theoretical grounds) that will not be adequately tested for years. That industrial management, which veers dramatically from natural patterns, is being studied does not make it acceptable.

The Maine Forest Service could have listed some of the threats to biodiversity, such as, habitat fragmenta-

Protecting large landownerships is not equivalent to protecting forest ecosystems.

continued on Next Page

Forests cont. from Page 10

tion, simplification, and conversion, pollution, exotic species introductions, over exploitation, or climate change. It could have discussed trends on these issues and suggested policies to address the negative trends. But it didn't.

Timber Supply and Quality

The indicators, benchmarks, and strategies that the

tion that one can project supply and demand for 50 years (even if the data were better) is even more questionable. Computer programmers do not know how technology, demand, global markets, weather, climate, insects, disease, legislatures, economic cycles, wars, or other such factors are going to influence the forest and forest industry over the next 50 years. That landowners should even try to meet 50-year projected demands is silly. Availability of forest products is lim-

volume, but it did not propose indicators or benchmarks that address some basic silvicultural issues. Rather than just assume that forester involvement is sufficient, a more likely approach would be to have as benchmarks:

- The percentage of cuts based on long-term management plans. On larger properties these plans should specify how the landowner will cut less than growth so that the inventory can rise to

optimal levels.

- In stands with a manageable overstory, the percentage of cuts that leave well-stocked residuals. The percentage of poorly- or under-stocked stands should diminish from 1991-1993 levels (determined by a MFS survey).

- The percentage of cuts where foresters have established a "pecking order" for loggers to cut the high-risk, poor quality species and trees first. High-quality trees that are growing well (even if they are large diameter) should be lowest on the pecking order. The percentage of poor-quality harvests should diminish from 1991-1993 levels.

- The percentage of cuts where stand residual stand damage is at acceptable and desirable levels should increase over time. Landowners need to establish incentives and disincentives for loggers if this is to happen.

- The amount of land taken out in roads, trails, and yards needs to diminish for productivity and residual stand damage to improve.

- The amount of pesticides used over forests (following state policy) should decline.

Conclusion

After several years of referendums and forestry legislation, the ball is now in the Maine Forest Service's court. If the MFS is going to get widespread consent for policy change, it has to convince the public that there are serious problems that need to be solved. Unfortunately, in this draft the MFS did a poor job addressing the serious nature of some of the problems or of coming up with credible solutions. The MFS strains credibility, for example, when it suggests that more forester supervision can be translated into good forestry, when this has already been demonstrated to not be the case. The Maine Forest Service risks its credibility when it lets others bring up unpleasant forestry problems. It also risks its credibility when it does not adequately address legitimate concerns that the public raises.

This article is criticizing a draft. If my points are valid and the Maine Forest Service is honest, the final draft will change. To the degree that the MFS uses its process in an honest and constructive way, we can end up with better state policy for forestry. To have policy that moves the whole in desired directions, however, the parts must move as well. There must be accountability of landowners. ☺



Maine Forest Service suggests for timber supply and quality are inadequate, and in some cases, misguided. The MFS was not forthcoming in revealing some of the embarrassing trends found in the 1995 forest inventory assessment. The four counties most dominated by industrial landowners had serious declines in inventory. In Somerset, Piscataquis, and Franklin counties, these declines were in both softwoods and hardwoods.

The MFS did mention a decline in red spruce, but stated that "red spruce continues to be an important component in young forests." The author of the document neglected to say that young forests are dominated by balsam fir, red maple, non-commercial hardwoods, birch, and aspen. To bring red spruce back into dominance from this context would require a substantial management effort.

To deal with supply demand problems, the Maine Forest Service suggested conducting "an assessment of future market demand and harvest activity to project harvest needs for 50 years." It is bad enough that MFS has been using questionable data. The assump-

ited by what the forest can sustainably supply. We should not be condoning the warping of ecosystems to meet endlessly growing demands.

A more proper use of computer modeling would be to determine:

We should not be condoning the warping of ecosystems to meet endlessly growing demands.

- The current state of the forest in regard to volume, stocking, stand size, stand structure, quality, and location;

- What stands could get a commercial cut or thin-

ning and still meet silvicultural objectives for stocking, quality, and sustainability;

- How much wood is available for harvest if such cutting is done; and

- How the forest would change over time and how much wood would be available in the future for an annual cut if standard silvicultural approaches are taken.

Maybe if the MFS can make its computer manage by accepted silvicultural standards it would find it easier to advise real landowners to try the same strategy.

The MFS showed concern over reducing mortality, increasing yield, and increasing the ratio of sawlog

Tell Me, Who ARE The Criminals?

Dear Marge Kilkelly,

I am wondering if I should turn myself in. All week I have been discussing the novel *The Monkeywrench Gang* and the EcoDefense book with the 45 students in my Environmental Literature class at Bates College. It seems now that your new bill would make this some kind of criminal behavior, as well as the discussion by the students. So much for protected speech.

But then I wonder who is aiding and abetting criminal behavior. To me, it is ecoterrorism to knowingly pollute our state's air and water. To me it is ecoterrorism to clearcut vast tracts of land and destroy their biological integrity to make a profit for your shareholders. To me it is ecoterrorism to harvest these resources with little concern for the health and safety of your workers. To me it is ecoterrorism to blackmail communities with the threat of loss of jobs so that you can continue to harvest these resources unimpeded by law. To my way of thinking, those are the acts of an ecoterrorist, but rather than punish them, you support and protect their criminal behavior, and try to find more and more ways to protect them while stifling public response. I am worried that the vagueness of your bill can and will lead to the violation of the civil rights of anyone who does not agree with the practices of multinational paper companies and their representatives in the legislature.

As someone living in your district, I felt that I had to respond, knowing that it would have little effect.

Gary Lawless, Dept. of English, Bates College

A Bill to Establish the Crime of Environmental Terrorizing— A Targeting of Political Expression

Sec. 1. 17-A MRSA 210, sub-1-A is enacted to read:

1-A. A person is guilty of environmental terrorizing if that person communicates to another person a threat to commit or cause to be committed a crime of violence dangerous to human life or destructive to property or business practices, for the primary purpose of expressing a perspective on an environmental or natural resource issue against a person or business and the natural and probable consequence of such a threat is:

A. To place the person or business to whom the threat is communicated or the person threatened in reasonable fear that the crime will be committed;

B. To cause injury in fact to persons or damage to property or business; or

C. To cause an interruption in business that results in loss of revenues or compensable damages.

SUMMARY

This bill establishes the crime of environmental terrorizing, which is the destruction of property or the interference with a place of business's normal course of business by individuals or groups for the primary purpose of making a political statement on natural resource and environmental issues. Environmental terrorizing is a Class C crime. ☉

Acid Rain, Ozone Threaten Eastern Forests

by Steve Holmer

Eastern forests, particularly in high elevations, continue to decline as a result of acid rain deposition and ozone pollution. In some areas, over 35% of the trees have been killed, streams cannot maintain native species, and the problem is getting worse, not better, despite improvements to the Clean Air Act in 1990.

These were some of the troubling findings at a recent conference "Acid Rain, Ozone, and the Great Eastern Forests" held at Duke University March 27. Sponsored by Appalachian Voices, the conference included presentations by scientists and EPA officials.

Along ridges of the Appalachian Mountains (from Maine to Georgia and Alabama) trees of every major species are in decline. Symptoms include very slow growth, early leaf drop, snap-offs, root decay, discolored foliage and premature death. Ground-level ozone and acid rain are the likely culprits. These pollutants acidify the soil and cause a deadly chain reaction. The nutrients are leached from the soil, toxic aluminum poisons the trees, and the health of the forests declines.

The weakened trees become much more vulnerable to drought, frost and pest attacks. The majority of these pollutants are caused by coal-burning plants of the Ohio and Tennessee Valleys upwind from the mountains.

Also an increasing number of Eastern lakes and streams have become acidic and support almost no life. Additionally regional haze is clouding the view,

because of floating particles of sulfur dioxide emissions. Ozone smog also causes respiratory problems, especially in children, asthmatics and the elderly.

Fortunately, there is something we can do about the problem. Pleasewrite your Representative and Senators and urge them to support the "Acid Deposition and Ozone Control Act" (S.172/H.R. 25), sponsored by Rep. Sherwood Boehlert (R-NY) and Sens. Charles Schumer (D-NY) and Patrick Moynihan (D-NY) which calls for power plants to make a 70% reduction in nitrogen oxides and an additional 50% cut in sulfur dioxide. These emissions cause acid rain, ozone smog and haze.

Write to:

Your Representative, U.S. House of Representatives, Washington, D.C.

20515 or

Your Senator, U.S. Senate, Washington, D.C. 20510.

For more information contact Jennifer Tetterton, Appalachian Voices at 828/262- 1500 or jent@boone.net

Steve Holmer is Campaign Coordinator for American Lands Alliance. He edits the invaluable Report from Washington, a periodic report on matters Congressional and Administrative. Contact:

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Gross Corporate Welfare

by David Guernsey

3/26/99

he recent announcement of a \$5 million state purchase of land from Plum Creek should be closely examined. If the Flagstaff Lake parcel is any indication, we may be getting a very raw deal. The Flagstaff land is on the upper end of a reservoir and is more often than not separated from the water by as much as a quarter mile of mud flat. There are no public roads or power lines within 5 miles. Scott Paper tried to develop the land some time back and abandoned the effort.

Since that time LURC has regulated the land to the point of virtual worthlessness. Flagstaff Lake is zoned "Management Class 2" which means that a building within 500 feet of the lake requires an entire mile of frontage. Road cost alone makes development impractical. In addition LURC rules require that an approved development must be adjacent to an existing development, further destroying the value of the

Flagstaff land. Any building must be set back in the woods with no view. LURC forestry regulations are so strict along lakes that the land may have little value as forest land either. Yet our state seems bent on spending millions for such property.

The state claims to be concerned with public access, but this land has no good access potential. The state already owns over 25 miles of the Flagstaff shoreland and has a long record of restricting public access over its land, not enhancing it.

The deal involves the Trust for Public Land, one of the slickest land sharks of the super wealthy environmental complex. In 1980 the Trust made a \$311,000 profit by owning two parcels in the Northwest for just one minute before reselling them to the federal government. A subsequent federal Inspector General Audit Report uncovered millions of dollars of such non-profit profiteering throughout federal land deals. Nothing has been done about it. What profit does this 'non-profit' expect from this Maine deal?

The governor reportedly wants to pay for this \$6 million deal out of the state surplus. The money will go right to the bottom line of Plum Creek's and the Trust for Public Land's financial statement. It certainly won't be reinvested in Maine. This deal represents gross corporate welfare at its most arrogant. Wouldn't we be better off spending this money on things like education so schools could buy enough books?

Start or join a discussion on *The Liars' Bench* or email us at:

GuernseyD@aol.com ☉



Kestrel

Eastern Coyote: Variation on a Canid Theme

by Daniel Stabler

What is the eastern coyote? If it is part wolf—and the evidence is not complete—what does its presence in our landscape mean for wolf recovery efforts? And what will wolf recovery mean for the eastern coyote?

While rambling through our Green Mountain National Forest this past February, reading animal stories left behind on a parchment of a new snow, I came across a wonderful tale of three coyotes and one moose in a hardwood glade. Both species were running and the tracks looked to be the same age. The moose was out in front, two of the coyotes followed directly in the trail left by the large ungulate, while the third coyote traveled parallel to the others about 15 meters away. A quarter of a mile into the trail, I came across several good size tufts of moose hair on the surface of the tracks. There was no evidence that the moose had brushed along trees that dislodged hair, and the color of the hair suggested they came from the lower hind legs or belly. There was no blood, and no more tufts of hair as I continued following the moose and coyotes for another third of a mile. Unfortunately, the day was at its end, and I had to turn back.

ical and biological identity.

Many studies have been conducted on the eastern coyote's origin, diet, reproduction, home-range size, group size, morphology and genetics, and behavior, giving us a pretty good idea about what this species represents. The evidence tells us that the eastern coyote is certainly not a wolf, but that it carries qualities more similar to wolves when compared to coyotes in their historic range to the west. These qualities raise fascinating questions about the adaptation and behavioral flexibility of species and in turn, bring forth more logistical questions concerning topics such as game management, habitat quality, and wolf restoration.

By the turn of the century, established populations of the eastern timber wolf were extirpated from most of the northeast region of the United States. The decline of this predator paralleled a significant alteration in the natural habitat of the northeast, creating an environment conducive to eastern colonization by the highly adaptive western coyote. By 1960, coyote populations seemed firmly established throughout northeastern United States and southeastern Canada. This relatively recent and expansive colonization demonstrates the highly adaptive nature of this wild canid responding to a variety of available habitat types, food resources, and lack of competition from larger carnivores.



Coyotes on Connecticut River Meadow, Maidstone, Vermont. Photo © Roger Irwin

This story carries implications. I hesitate to conclude that I was following a predatory chase sequence, but only because the tracks belonged to coyotes. Based on my experience studying wolves in Minnesota and Yellowstone National Park, the evidence before me (the running gaits, the tufts of hair in the trail, the pack formation of the canids while following) implies a hunt. If I saw this same sequence of tracks in wolf country, with wolf tracks replacing the coyotes', I would be hard pressed to record anything else but a chase event with the intention of predation.

Coyote Moves East

So what exactly am I alluding to here? It is clear that the eastern coyote, *Canis latrans* var., exhibits differences in both its behavior and biology from its western counterpart. Differences in body size, social and spatial organization, and prey selection, have spurred talk of the eastern coyote filling the niche once held by the eastern timber wolf, *Canis lupus lycaon*, and leads to questions about both its ecolog-

During this colonization period the coyote occurred in sympatric, or geographically overlapping, regions with wolves and hybridization did occur. Identification of 'wild-canids' showing up in the northeast proved difficult due to their physical characteristics, and the evidence that they could hybridize with both wolves and dogs. This resulted in uncertain classification by taxonomists and laymen alike and titles such as 'wolf', 'coyote', 'coy-wolf', 'brush wolf', and 'coy-dog' were used to describe individuals. Though surprisingly still prevalent in the minds of locals, the notion that the eastern coyote is a coy-dog hybrid has been soundly disproved by the fact that successful crosses result in unsuccessful survival of subsequent generations due to reproductive and behavioral disadvantages.

A much more reasonable hypothesis is that hybridization with smaller varieties of *Canis lupus* during range expansion led to an influx of wolf genes into coyote populations and significantly affected phenotypic expression of body size and behavior. The application of relatively recent molecular techniques, however, has shown us that although gene flow has occurred between wolves and coyotes, wolf genes do not have a significant presence in the eastern coyote's genetic identity. In contrast, the genetic identities of wolf

populations in hybridization zones show significant frequencies of alleles unique to coyotes.

The explanation for this finding is that mating asymmetry exists, with female coyotes mating with male wolves and offspring backcrossing to wolf populations. The hypothesis we are left with is that the characteristics of the eastern coyote may best reflect a response to prey selection and diet. It is unclear whether the underlying process is genetic selection for larger body size for its advantage in hunting larger prey, or a phenotypic response to enhanced nutrition - a 'chicken and the egg' question. Perhaps it is an amalgamation of both, which leads us to ask what drives evolutionary processes? However they may work, we see their magic in the eastern coyote.

continued on next page

Coyotes

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Coyote's Predation Patterns

We in the northeast are all familiar with the observations and descriptions of 'monstrous' coyotes, 'at least 60 or 70 pounds', that form 'large packs' and 'slaughter deer' throughout the Northern Forest and surrounding countryside. Truth be told, the eastern coyote is large compared to coyotes in their historic, western range. Studies have found average male eastern coyote weights to range from 35 to 45 pounds compared to the average of 25 pound male out west. Just this past November, a record 73 pound male coyote was shot by a deer hunter in Glover, Vermont.

Also true, our coyotes often form well-established packs greater than or equal to 3 individuals, the result of delayed dispersal of offspring past their first winter. This is not, however, unique to eastern coyotes. Group size in coyotes is as much a reflection of the availability of territory for dispersing young, helping behavior in raising younger siblings, and defense of concentrated resources such as large ungulate carcasses, as it is a reflection of the advantages of cooperative hunting of larger prey species.

The coyote is best described as being highly opportunistic, showing versatility as both scavenger and predator. Studies on the western coyote have shown them to be primarily dependent on rodents, rabbits and hares, and carrion. Though very infrequently, western coyotes prey on ungulates like deer and elk, but the particular individuals killed are typically very malnourished, injured, or young. The eastern coyote shows the same degree of versatility as both scavenger and predator, but in the northeastern United States and southeastern Canada, deer appear to be playing a more important role in its diet, and often through direct predation.

In addition, territorial home ranges of eastern coyote packs are significantly larger and show less overlap with neighboring packs compared to western coyotes. The densities of deer and snowshoe hare in forested regions may require coyotes living in these habitats to establish larger home ranges to support an adequate prey base. This is not to imply that all eastern coyotes travel in large packs over great distances, killing deer on a frequent basis. This is simply not true.

Direct predation on deer does appear to be more prevalent with coyotes living in contiguous forest habitats where lesser prey diversity exists, as compared to coyotes living in mixed agricultural-forested habitat. This use of deer fluctuates throughout the year

based on seasonal changes in vulnerability. The main factors affecting deer vulnerability are diminished energy reserves and deep snow or crust in late winter, and fawning in early summer. These factors are reflected by the higher proportion of deer making up the coyote's late winter and early summer diet, compared to lower proportions found in late summer, fall, and early winter diet when deer vulnerability is at its lowest. Throughout the year, but especially during the summer and early fall, coyotes diversify their food base by using smaller prey items, such as rodents, birds, rabbits and hares, as well as berries and apples. Also, we cannot ignore the fact coyotes occasionally

wolves, carries implications about its adaptability and impact as a predator. We seem, however, locked into strong opinions about what the eastern coyote is, some quickly accepting it as the 'new wolf', with others failing to address important questions concerning its ecology and behavior. By under or overestimating these qualities of biology and behavior, we lose valuable insight into the ecological relationships currently at play in the regions of the northeast.

Yes, predation is occurring when deer are vulnerable, but there is little evidence that eastern coyotes are yet in any large scale, dynamic relationship with ungulate populations as wolves would be.

Many qualities of the eastern coyote identity suggest that since we are dealing with a species in transition perhaps in time we would continue to see a niche shift. But for now, the eastern coyote is operating in a wide niche as a scavenger and opportunistic predator of large and small prey. There seems to be a great amount of flexibility in this behavior, giving rise to its highly adaptive nature. There is, however, compromise in adaptation, which may be more influential in preventing the eastern coyote from ever evolving into the ecological equivalent to the wolf.

Wolf & Coyote

As the northeast gears up for the challenging process of wolf recovery, what role will the eastern coyote have? First off, by no means should the presence of the eastern coyote be used as an argument against the importance of restoring wolf populations. Just as it would be extremely naive of us to believe that management actions of habitat alteration and human hunting are a substitute for the effects that large predators have on the dynamics of ungulate populations, plant populations, and nutrient cycling. Secondly, we must realize that there will need to be some adjustments to the way we deal with coyotes now. It is unbelievable how many coyotes are shot in the northeast just because they happen to walk in front of someone with a gun, especially during the deer hunting seasons. Without changing this open season 'must kill' attitude, wolves that may be undistinguishable from coyotes will suffer greatly.

Thirdly, and most important, how will interspecific interactions between wolves and coyotes play

out in the northeast? We can look to wolf recovery in the Greater Yellowstone Ecosystem for some of the answers, but certainly not all. With over a sixty year absence of wolves in that ecosystem, coyote densities increased to some of the highest in North America. Since the wolf's return in 1995, we've witnessed a significant impact on coyotes, with up to 50% decrease in their numbers in areas where wolves have established territories. Wolves, acting under strong territorial and competitive exclusion, have a strong dislike for their smaller relatives. I have personally witnessed Yellowstone wolves running down and killing coyotes.

Wolves and coyotes in those regions maintain well-differentiated identities, both ecologically and physically. There has been no hybridization between wolves and coyotes there, largely due to the size difference (100 lb. wolves vs. 25 lb. coyotes) and strong behavioral isolating mechanisms just alluded to. Even



Photo © Roger Irwin;

...what drives evolutionary processes? However they may work, we see their magic in the eastern coyote.

prey on domestic animals. As is the case with many predator-prey systems, availability and vulnerability of prey largely govern prey selection by eastern coyotes, which in turn is dependent on habitat, season, and weather conditions.

Coyote's Ecological Niche

So what role is the eastern coyote playing in northeastern ecosystems? Operating as an ecological replacement to wolves are big shoes to fill, and it seems fair to say that by assigning them this position, eastern coyotes are wearing several sizes too big. We should not however deny ecological impact, for even one successful predation on a deer is significant: for the deer that died, the coyotes that feed, the associated scavenger complex, and the many other ecological processes involved. We simply do not have all the answers on this topic. To simply state that the eastern coyotes have or have not filled a role even similar to

Old Haunts of the Canada Lynx in NH's North Country

by Paul Doherty

Paul Doherty's *The Northwoodsman* column runs in several New Hampshire North Country newspapers. The following piece on lynx ran in *The Northern Beacon* on March 1st. Mr. Doherty has collected a number of his columns in a book, *Smoke from a Thousand Campfires*.

The release of a couple of Canadian lynx in the wilds of Colorado has been in the news of late. There are, of course, some people who are opposed to this release, on the grounds that the lynx will kill livestock. This is sheer nonsense, for the lynx is not a predator of creatures larger than itself.

There is some question these days about the lynx in New Hampshire. Do a few still roam the remote areas of northern Coös and the White Mountains, or have they ceased to exist here? The last track in the snow that I was positive of was some ten years ago. On that occasion, the cat had come across the Peabody River and crossed Route 16 near the Peabody River bridge, then headed east into the Mount Moriah country.

The location of this lynx valley crossing is interesting. In the late 1940s, when I first came north as a Conservation Officer, Vyron Lowe, of Randolph, was alive. He was one of the last of the old-timers who could remember what the woods and the wildlife were like before the turn-of-the-century.

Vyron was, among other things, a lynx and pine marten trapper. He called the marten "saple," his way of pronouncing "sable." I would often stop at his place in Randolph and pick his brain about the woods of old, a topic he was happy to talk about. He was a most interesting man with a wealth of information.

During the 20 years he was a game warden (he was on the job before I was born), he covered much of Coös County. We often talked about lynx, and he told me where to look for tracks in the winter.

There were five major crossing sites he spoke about: Dixville Notch near the height of land; Randolph near Bowman; Gorham near the Peabody Bridge (where I saw the track 10 years ago); Pinkham Notch near the top of Spruce Hill; and Crawford Notch at the height of land near Saco Lake. For years,

I watched these crossing places after what he used to call a "just-right snow storm." As he said I would, I saw where a Canadian lynx had left that large, saucer-like print in the snow.

During the 1950s, I signed bounty papers for a

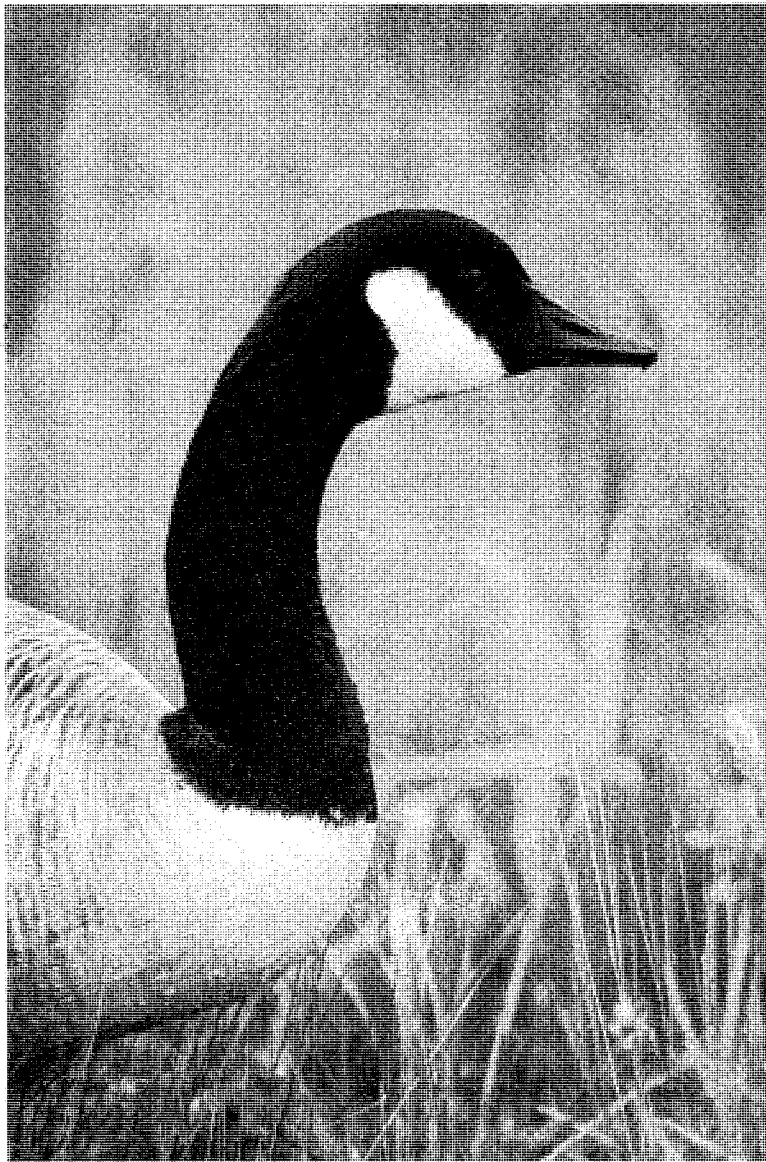


Photo © Roger Irwin

number of lynx taken by two or three trappers. The most famous of these trappers was Al Stagman, who trapped in the Zealand country. He later died there in the woods, of natural causes.

Jack Boothman, of Randolph, took a lynx now and then. His best success was in the headwaters country of Wild River, where he took two one winter.

From my own experience with lynx, it was the Wild River country where I saw the most signs. Every winter, I snowshoed in, either from Jackson or Gilead, Maine, and spent a night or two in the old log cabin (now gone) at No-catchem Pond. It was in this remote headwater country that the lynx was making its last stand here in New Hampshire.

The man who took over where Al Stagman left off was Ray Evans, of Twin Mountain. I don't know how many of these cats he caught, but it was, I think, more than any other trapper after World War II.

Ray's favorite area was Crawford Notch and Mount Willard. The only live wild lynx I ever saw was with Ray one day when he was tending his trap line.

Ray Evans, by the way, is a legend, the last of the old trappers and woodsmen. He was born in Crawford Notch, and that in itself is the stuff legends are made of. To the best of my knowledge, Ray trapped the last lynx taken in the state before the bounty was taken off.

The two cats most common when the first settlers arrived from Europe were the wild cat (bobcat) and the lynx. In the early days the wildcat was called the Bay Lynx, and the real lynx was known as the Canadian lynx.

There is actually quite a bit of difference between these two animals. The wildcat is the larger of the two, but most people think the lynx is larger due to its long legs and long body. The largest wildcat I ever weighed was a 44 pound male. There is a photo of this cat on page 308 of my book *Smoke from 1,000 Campfires*. The largest lynx I had occasion to weigh was 22 pounds.

The Canadian lynx has huge feet covered with lots of hair. These large feet act as snowshoes in the winter and account for the large print. The lynx also has very prominent, long tufts of hair on its ears.

Another fact few people are aware of is the end of the bobcat's tail as compared to the tail of the lynx: the tip of the wildcat's tail is black on the upper top side only, but the lynx has a total black tip on its tail.

Two years ago, Ginger Bowie and I spent two months in Alaska. While in the small village of Chicken, Ginger took a walk looking for Diamond Willow, a small tree used for fancy walking sticks. While she was making a pile of stones to mark a spot where she found some Diamond Willow, she had the feeling she was being watched. Looking around behind her, she saw a lynx sitting there looking at her. The two of them had real eye-to-eye contact. There is an old Indian legend about this that I have got to ask about . . .

Coyotes

cont. from Page 14

in places like Minnesota where the size difference isn't as drastic, wolves exclude coyotes whenever possible from their territories. But let's look at a potential scenario here in the northeast where a lone 70 lb. dispersing female wolf comes across a lone 73 lb. male eastern coyote. Would she kill it? Probably not. Would she pair bond and mate with it? Maybe.

It is my opinion that established wolf packs in the north-

east would be successful in displacing coyotes from their territory for the most part. We could potentially even see a reduction in coyote numbers overall, especially in more contiguous forest habitats. There is, however, a greater potential for niche overlap, competition for resources, and hybridization than in places like Yellowstone and Minnesota. This phenomenon seems to be taking place to a certain degree in Ontario where a form of the eastern timber wolf, the

... by no means should the presence of the eastern coyote be used as an argument against the importance of restoring wolf populations.

Algonquin wolf, runs risk of losing its genetic identity and ultimate survival. Here, coyotes are taking advantage of openings, both reproductive and ecological, resulting from habitat fragmentation and human persecution of wolf populations in the surrounding regions.

Certainly, a naturally recovering wolf population in the northeast runs a greater risk of these effects than a reintroduced population. Under natural recovery, it is usually single individuals or pairs that are responsible for the establishment of populations in new areas. They face the challenge of finding an individual of the opposite sex, then finding suitable and available territory void of competition. Several socially stable packs of wolves put in place through reintroduction, on the other hand, run much less risk to the potential impact of the eastern coyote's presence.

Conclusion

It is highly unlikely that the eastern coyote will be totally displaced from the northeast. There is plenty of habitat not suitable for wolves, but perfectly fine for coyotes. The same qualities of adaptation and behavioral flexibility that allowed the coyote to colonize the northeast will also allow it to adjust to the presence of wolves when they return. Once again, we simply don't know all the answers, and can only make predictions drawn from lessons learned in other ecosystems. We

must proceed forward with scientific knowledge being the driving force, over political impetus.

The eastern coyote has received its share of persecution and blame, but unlike the wolf, it has fared much better against human alteration of habitats and prey populations. It has been viewed as a symbol of wildness, an influential participant towards the top of the food pyramid, a bane to hunters and farmers, and it may very well represent all of these at times. I myself view the eastern coyote, in both its 'coyote-like' and 'wolf-like' qualities, as a beautiful example of the adaptability and behavioral flexibility that exists in species, a quality so essential to the diversity of life. I wish now that I had returned the following morning to that Green Mountain trail of the three coyotes and one moose, to see just how the story ended. I would have tracked them all day, with my ears tuned for the sound of excited ravens.

Daniel Stabler is a native Vermonter from the Northeast Kingdom. He has been involved with wolf research in Minnesota and has been a member of the Yellowstone Wolf Recovery Project and Research Team for the last two years. He is currently working on a graduate degree through the University of Vermont under Bernd Heinrich, studying the impact that wolves have on the scavenging communities in Yellowstone National Park, with a focus on wolf and raven relationships.

Restoration in a Northern

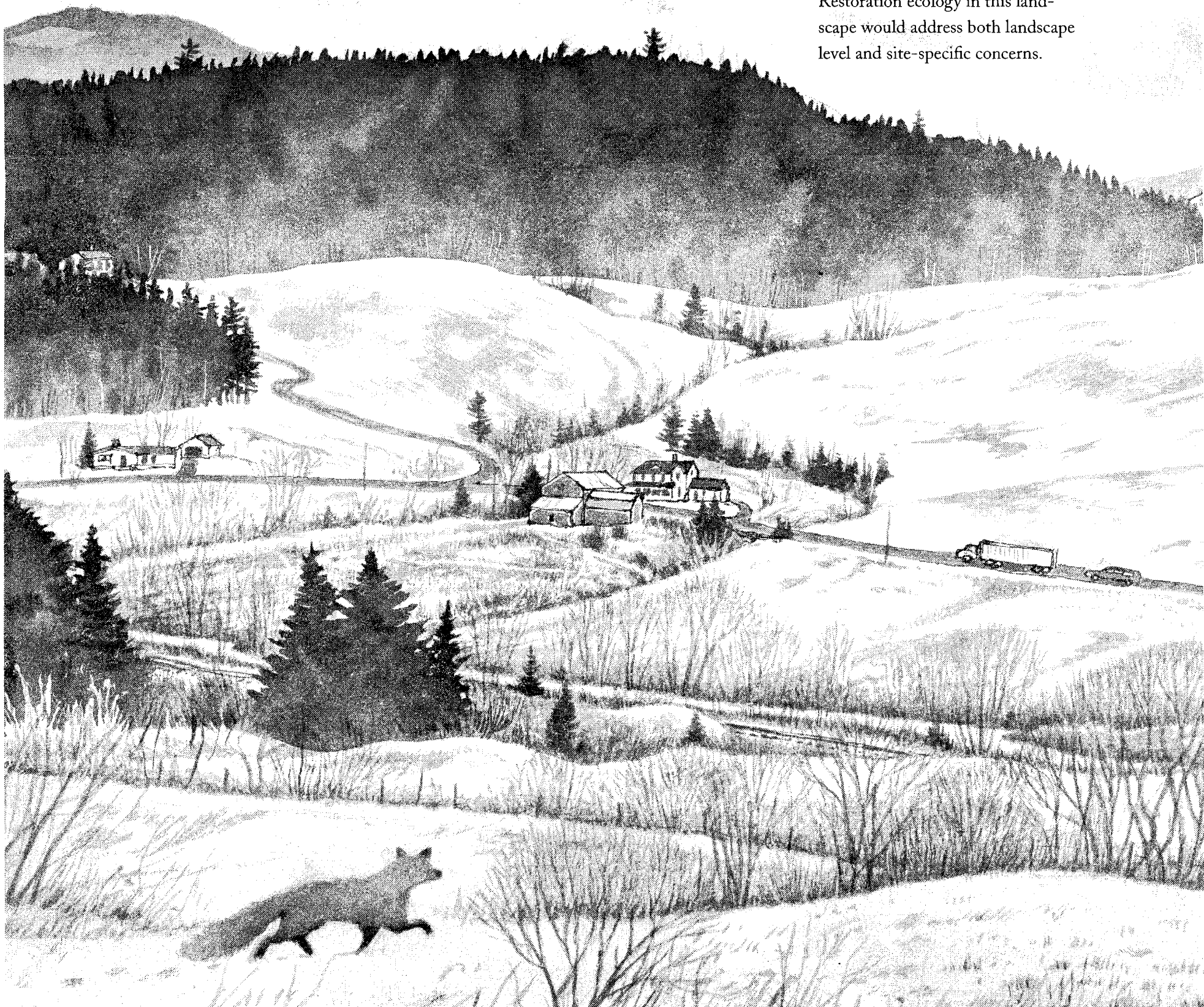
The scene is familiar to any who have driven between Vermont, New Hampshire and the Maine Coast. Reverting and maintained farmland, woodlots and clearcuts, the nibbling effects of development and the palimpsest of past land uses: a mosaic of habitats that is the context for ecological restoration across a significant portion of the Northern Forest.

Typical of wider New England, a highway in the distance, a dirt road hidden in the foreground, a railroad—all parallel a river and its alluvial floodplains (hidden in the middleground).

The scene is home to: moose, deer, bear, turkey, crow, raven, otter, fisher, beaver, coyote, fox, porcupine, bobcat, black duck, several varieties of merganser, stocked Atlantic salmon fingerlings, German brown trout, herons, the pileated woodpecker and numerous neo-tropical migratory songbirds and raptors. Some spend their whole lives locally; others roam through the area, traveling between more extensive habitats. The fragmentation of habitat along this corridor of human activity becomes a consideration in conserving biodiversity—species, structures and functions—across the landscape.

The scene is also home to people and our economy. In the far distance are clearcut mountaintops: we are in the buying circle for the region's pulp and paper mills. The highway here is traveled by chip vans and log trucks. Woodlots are increasingly managed on a commodity basis: cleared of all merchantable timber. Housing reflects the increasing disparities between the haves and have-nots: big houses on hills; modular houses by the highway. Economic activity is increasingly centered in areas of population concentration; a home in the country becomes a luxury. The local economy is structured around cheap petroleum—inexpensive travel, motorized recreation and consumer goods.

Restoration ecology in this landscape would address both landscape level and site-specific concerns.



Forest Landscape

This particular area is situated between extensive public and paper company lands to the north, east, and south. Connectivity of habitats and the conservation of these remoter intact core habitats is a priority, especially for larger and more sensitive species—bear, for instance—and restoration of top predators. Connectivity in our backyards requires a heightened awareness and appreciation for both the remoter, wilder areas and the woodlots, hedgerows, and fields of home.

Site level considerations will enhance the quality of habitats and the services they can provide—food and shelter, quality of water, and connectivity. The forest types represented here are a mix of Northern hardwoods, spruce-fir and white pine; species include a few strag-

gling red oaks and hemlock; the landscape includes grazed pastures and plantation spruces and red pine. Vegetative community types may include northern white cedar swamp, alder thickets, various marsh, bog and other wetland associations. Literacy in the landscape is a key component to protecting it.

A menu of actions for allowing the processes of restoration to continue across this landscape would include the large and small. On a grand scale: the prioritization of conservation dollars toward the protection of large, intact, and connected core habitats. Locally: education in landscape ecology; low impact forestry methods that preserve closed canopy and other complex forest structures such as multiple

canopy tiers, return biomass to the forest floor and conserve water quality; re-vegetation of riparian areas; preservation of wetlands and floodplain; small, local reserves centered on unique plant communities or that allow for old growth forest structures and functions.

Nature and Life are irresistible forces. Yet our landscape is a reflection of human uses. Human society dominates the Earth—for now. An enlightened human society would surrender its control—out of self-interest and humility alike. Becoming a part of the landscape that does not dominate it, inhabiting it as naturally as the fox: that is our challenge. ☉



Woodland Caribou in Northern New Hampshire

by Paul T. Doherty

Every now and then at the Breakfast Club at Welsh's, in Gorham, someone will mention caribou, having seen on TV pictures of hundreds of those animals on the move somewhere in the far north. At some point in the conversation I will be asked—"did we ever have caribou in northern New Hampshire?"

Caribou in northern New Hampshire is a topic that there is very little to report on. History of this part of the country tells us that the caribou was never a permanent resident, or even a regular migrant. Early records, and they are few and far between, indicate the caribou were never more than a casual visitor to what we now call New England. The only exception to this is the very northern part of Maine where they were said to be more common. One writer in the late 1880s indicated the caribou was a rare animal in New Hampshire with only a few stragglers coming down from the north on occasions.

J.W. Weeks, writing in *The History of Coös County* (1888) said he had never seen one, knew nothing about them, and never heard early settlers speak about them. Weeks, by the way, was regarded as one of the most informed writers on the wildlife of Coös County.

Fifty years ago when I began to wear out shoe leather as a Game Warden in Coös County my two sources of information about caribou in the area were two men knowledgeable in the ways of the wild, Fred Scott, of Pittsburg, and Harry Hurlbert, of Errol, both long time Game Wardens in northern New Hampshire.

Fred Scott, born in 1892 in Pittsburg in the old family homestead at Back Lake was a member of the famous Scott family of guides. By the time he went to work as a Game Warden he had had years of woods experience. Harry Hurlbert, born in a log cabin in Clarksville in 1886, went to work in the woods as a youngster. He became a logger, axe man, river driver, hunter and guide, before becoming a Game Warden.

Both these men, in the late 1940, when I began to patrol with them, were being called "old timers" by people who knew them well. Both had wonderful memories and could recall stories told to them years before by men they called "real old timers." Having always had an interest in the history of wildlife I naturally often asked questions. On occasion the caribou would come up and from these two men what little I know about the caribou in Coös County was obtained.

Before I tell you what Harry and Fred had to say about caribou now about a bit of information about the creatures. To begin with, zoologists say there are a dozen

species of caribou in America. For general purposes, however, let's lump them together and come up with two: Woodland Caribou and Barren Ground Caribou. The Barren Ground are the ones you see on TV migrating by the thousands far to the north. Those found, like the ones that once were seen in northern Coös County, in the forest are the Woodland. For the purpose of the rest of this column, I will be writing about the Woodland, a specie of caribou larger than

Nose, having another horn in the middle of their Forehead about half a yard long, very straight but wreathed like an Unicorn's Horn, of a brown jettie colour, and very straight." From Josselyn's writing the name Caribou or Maccaribou, (both Indian names) came into general use.

The research I have done indicates that as far as New England goes caribou were only found in northern Maine and were mentioned as being rare stragglers in northern New Hampshire. There is one report of a small herd seen on Mount Katahdin in November of 1914, the first seen for 25 years. At about the same time a Maine Game Warden reported a herd of about 30 animals on the Maine side of the St. John River in northern Maine.

As I wrote when I started there is little on record about caribou in northern New Hampshire. The area had few settlers in the early 1800s and few, if any, did any writing. I can only report on what Fred Scott and Harry Hurlbert told me. Any information they had had come from old men who passed on stories they had heard.

Harry Hurlbert could remember hearing about a herd of caribou that came from the northeast and spent time in the Upper Androscoggin watershed. He didn't think the animals even came into the Dead Diamond River valley but were found, for the most part, in the Rangle Lake region of Maine.

Fred Scott told about an old timer in Pittsburg, Leonard Hawes, who had seen caribou near Second Lake in about 1885. Harry also recalled hearing Frank Huggins, a Pittsburg guide, telling about caribou being in the Connecticut Lakes country at the turn of the century (1900). It was Fred's opinion that the animals that were still on the hoof about 1900 were not killed off by the locals, "they just went back north," was how he put it.

The fact that old law books show a closed season on caribou in 1878, indicates the state did have a few of the animals. In 1891 a limit of two, during an open season from Sept. 1 to Dec. 31, was established. Ten years later the season was closed. By then the caribou were gone from upper Coös County, never to return.

It was Harry Hurlbert who told the most colorful story. He said it happened about 1900 when he was about 14 or 15. He was with a party of local hunters looking for caribou. The time was late November. They found tracks and followed them toward the Canadian Border near 3rd Lake. From the shore of 3rd Lake they saw 8 or 10 animals out on the frozen lake. Everyone in the party picked a caribou to shoot. "How many did you get?" I asked. "Didn't get any, the GD wind came up and the snow drifted in a cloud between the caribou and us. When the wind went down the animals were gone. They just disappeared into that cloud of snow."



the other.

In 1497, John Cabot discovered Newfoundland. He wrote about "white Beares and Stagges farre greater than ours." In *The History of Canada*, published in 1636, the word caribou is found, also in reference to these animals they are called wild Asses.

Josselyn made several trips to the New World from England and wrote about the wildlife found there. In his *New England Rarities* (1636), he had this to say: "The Maccaribou, Caribo, or Pohano, a kind of Deer, as big as a Stag, roundhooved, smooth hair'd, and soft as silk, their horns grown backwards along their backs to their rumps and turn again a handful beyond their

Historic Quotes on the Abundance of Wild Maine Coastal Fishes 1602 to 1772

-- From: "Searching for Systems in the Gulf of Maine" -
by Spencer Apollonio. 1999

"...in five or six hours... we had pestered our ship with codfish that we threw numbers of them overboard again... For the schools of mackerel, herrings, cod, and other fish that we daily saw as we went and came from shore were wonderful." 1602

"As the land is full of God's good blessings, so is the sea replenished with great abundance of excellent fish as cods, sufficient to lade many ships, (and) which we found upon the coast in June: seals to make oil withall, mullets, turbot, mackerels, herrings, crabs, and lobsters, crevices, and mussels with ragged pearls in them." 1603

George Waymouth (1605) reported that "Here (Maine) we found great store of excellent codfish and saw many whales as we had done two or three days before. While we were at shore, our men aboard with a few hooks got the thirty great cods and haddocks which gave US a taste of the great plenty of fish which we found wheresoever we went upon the coast."

"Towards night we drew with a small net of twenty fathoms very nigh the shore, we got about thirty good and great lobsters, many rockfish, some plaice, and other small fishes, and fishes called lumpes verily pleasant to the taste. We generally observed that all the fish of whatever kind we took were well fed, fat, and sweet in taste." 1605

"Here our men found abundance of great mussels among the rocks..

...it shows how great a profit the fishing could be; they being so plentiful, so great and so good...

...it shows how great a profit the fishing could be; they being so plentiful, so great and so good.."

"Here we saw great store of fish, some great leaping above water. which we judged to be salmon." 1607

"And every day we saw whales playing hard by us; ...We found great mussels, and very fat..." 1620

"... we saw daily great whales..come close aboard our ship, and in fair weather swim and play about us." 1620

"... crabs and lobsters, in their time, infinite."

"Our bay is full of lobsters all the summer and affords a great variety of other fish. In September we can take a hogshead of eels in a night, with small labor, and can dig them out of their beds all the winter." 1621

"...so fish increase. And indeed their excellent abundance was a great cause for increasing our wants. For though our bays and creeks were full of bass and other fish yet for want of fit and strong seines and other netting they for most part break through and carried all away before them. And ... the sea were full of cod..." 1622

"This fish (sturgeon) is here in great plenty and in some rivers so numerous that it is hazardous for canoes and the like small vessels to pass to and again, as in the Pechipscut River to the eastward."

"The herring... were driven.... by other great fish... so near the shore that they threw themselves.. upon dry land in such infinite numbers that we might have gone up half way the leg amongst them for near a quarter of a mile."

"The bass is an excellent fish...I... have seen such multitudes pass out of a pond that it seemed to me that one might go over their backs dry-shod." 1632

"Of eels, there is abundance. The fresh-water eel.. is the best he has found in his lifetime."

"Of smelts, there is such abundance that the savages take them up the rivers with baskets like sieves."



Photo courtesy of Maine Marine Archive.

"Hake is a dainty fish and excellent.. and there are multitudes."

"There is a large-sized fish called a halibut or turbot. Some are taken so big that two men have much to do to haul them into the boat- There is such plenty that the fishermen only eat the heads and fins and threw away the bodies. Such in Paris would yield five or six crowns apiece." 1632

"Lobsters are there, infinite in store, in all parts of the land and very excellent."

"There are great stores of oysters in the entrance of all rivers. They are not round as those of England but excellent fat and good. I have seen an oyster bank a mile in length."

"Mussels are in infinite store.. The fish is so fat and large."

"There are many good places [Passamaquoddy Bay] abounding in fish in the season, such as codfish, salmon, bass, herring, halibut, and other kinds in great numbers."

"There are multitudes of [sturgeon]. and they are much fatter than those that are brought into England from other parts..by reason of their fatness."

"and abundance of lobsters. ,For my own part I was soon cloyed with them; they were so great, and fat, and luscious...Also here is abundance of herring, turbot, sturgeon, cusks, haddocks, mullets, eels, crabs, mussels, and oysters."

"Alewives... come up to the fresh rivers to Spawn in such multitudes as is almost incredible, pressing up such shallow waters as will scarce permit them to swim."

"Here are likewise vast quantities of excellent fish such as bass....of an excellent taste."

"The mackerel, of which there is a choiceful plenty all summer long, in the spring are ordinarily 18 inches long." 1675

"The alewife... has been taken in two hours time by two men without any weir at all, saving a few stones to stop the passage of the river, above ten thousand." 1675

"The oysters are long shelled. I have had them nine inches long from point to the too.. to be cut into three pieces before they could get them into their mouths. Very fat and sweet." 1675.

"About ten days ago there was 2,500 and odd shad taken out of Merrimac River by one single draft of a net" 1760

"We made the largest haul of fish, caught 6000 shad, menhaden and bass." 1772

Alerting the Public about Frog Malformations in Vermont

by Ben Davis, Outreach Director,
Vermont Public Interest Research Group

In October of 1996, children playing on the Vermont shores of Lake Champlain discovered large numbers of deformed frogs. Over the next two years, citizens organized by the Vermont Public Interest Research Group, and state researchers, scoured Vermont to learn the extent of the problem and seek clues on causes.

In two years of sampling, VPIRG volunteers found, on average, seven percent of the frogs to have abnormalities. Frog surveys done in other parts of the U.S. and Canada are finding similar deformity rates. The normal rate of deformities is one to two percent. Abnormalities include: missing legs, extra, branched, or contorted legs, missing eyes, unresorbed tail, and internal deformities. Vermont's high rate of frog deformities may be an indication of threats to human health as well.

As vertebrates, frogs and humans share many physiological characteristics. Whatever is causing frog deformities may be affecting us too, in ways we are only beginning to recognize. A wide variety of complex and interacting factors, both natural and synthetic, may be contributing to frog deformities. Increasingly, scientific research is pointing to toxic chemical contaminants, such as pesticides, as the major culprits.

The unique physiology of the frog makes it highly vulnerable to synthetic chemicals in the frog's aquatic environment. Frogs have permeable skin that both breathes and takes in water. Whatever chemicals frogs encounter are readily absorbed through their skin. As tadpoles become frogs, a profound reorganization of body structure and body chemistry takes place. This process is driven by hormones. Many organo-chlorines, including dioxin and commonly used pesticides actively disrupt natural hormone systems. The result may show up as a deformed adult frog, or no adult frog at all.

VPIRG's survey is not designed to be statistically accurate. Rather it allows ordinary Vermonters of all ages to take part in a discovery process leading to greater awareness of a serious environmental problem. Frog health is an excellent indicator of watershed health.

VPIRG invites you, over the summer months, to take a look at your watershed by taking part in our Citizen Frog Survey. Call VPIRG at 223-5221 and ask for a survey. A typical surveyor will sample one site several times over the course of June, July, August, and



Spotted Salamander in Paul Stream Basin, Maidstone, VT. Photo © Roger Irwin.

More Amphibian Surveys Across the Region

The New Hampshire Herbicide Project will also be coordinating in frog surveys in northern NH sponsored by NH DES and US F&W. These will be concentrated in the Umbagog and Connecticut Lakes Region. For further information, please call: Daisy Goodman 603-922-5544.

National Wildlife Federation in Montpelier is going to be continuing research this summer on the connection between green frog malformations and intensive land management practices. The project has a need for research assistants during the last week of July. To participate or for a copy of their frog survey last year in VT please contact Monique Gilbert at 802-229-0650.

Finally, amphibian researcher Jim Andrews at Middlebury College continues his amphibian atlas project and invites volunteer data gathering. Contact: Jim Andrews at 802-443-5648 or Middlebury College, Biology Dept., Middlebury,

September. All you'll need is one survey per sampling, a fine mesh net and a bucket with a lid. Information is recorded on the survey and results mailed to VPIRG by October 15.

Deformed frogs in our midst are a stark reminder that we need better information about pesticide use, whether on Christmas tree plantations, golf courses, at schools, on farms or suburban lawns, to protect our health and help safeguard our water and food from contamination.

Pesticides are the only class of toxic materials intentionally introduced into the environment to kill or damage living organisms. Currently, Vermonters are frequently exposed without their knowledge to pesticides whose human health effects are largely unknown. Recent studies demonstrate frightening links between pesticides that mimic natural hormones and birth defects, reproductive dysfunction, and developmental abnormalities in humans.

The right to know about pesticides is a basic right. Knowing what toxic substances are in one's environment is a matter of fundamental fairness and is an essential part of a democratic society. Information about pesticide use can help individuals make choices and take action to limit their exposure.

Pressure from the chemical companies and fear on the part of pesticide users has polarized discussion of

the pesticide issue. VPIRG believes that Vermont can do better. By examining the state's pesticide policies and practices with common sense goals in mind, Vermonters can engage in a dialogue that moves us away from this stalemate and towards consensus. Together, we can focus on ways to eliminate all nonessential pesticide use while supporting farmers and others as they move away from reliance on pesticides.

VPIRG's proposals for pesticide reform include advance notification of pesticide use, detailed use reporting, increased support for farmers moving away from pesticide intensive agriculture, strengthening groundwater protection by establishing broad buffer zones for surface waters, and banning the use of pesticides from school buildings and grounds and state owned properties.

VPIRG invites you to take action and become involved in the Vermont Citizen Action Network (VCAN). VCAN is a way for Vermont activists to quickly and effectively make their voices heard. VPIRG is engaged in more than a dozen campaigns, including pesticide reforms, in need of motivated people to make phone calls, write letters, attend public meetings and Legislative hearings, and speak out on critical issues. For more information, contact the VPIRG office at 223-3463. ☺

Let Vermont Moose Herd Expand

Presented April 6, 1999 for public comment before the Vermont fish and Wildlife Board

I'm Carl Russell, and I'm from Bethel. I oppose the 1999 expansion of moose hunting into central Vermont.

I have been told by hunters, game wardens, department personnel, and legislators, that if I don't like this plan, I can post my land. As a private landowner I do not have to post my land in order to control the uses put to it. Furthermore, my issue is not with hunters, it is with the Department of Fish and Wildlife.

As a landowner, I work to improve and maintain habitat, and I allow access for hunting. As a forester, I help people make decisions about resource management. As a hunter, I contribute financially, and through measured harvest, to the conservation of wildlife in Vermont. From all of these perspectives, I will continue to advise landowners not to use this plan as a basis for decision making about moose hunting on his, or her, property.

My primary objection is the use of cultural carrying capacity to establish acceptable moose populations. It is a widely discussed symptom of our modern culture, that many people do not have a clear understanding of the factors associated with resource use. I question the logic behind wildlife management based on the interests of the general public.

Issues of public safety, habitat fragmentation (read, residential development), local economics, and property damage, are all factors of cultural carrying capacity. These issues have political, social, and economic ramifications that shape individual opinions and serve to divide us.

We need a plan that we can all discuss without the biases that cloud our vision. The longer we foster a division between landowners, hunters, and preservationists, the longer it will be before the general public is compelled to take responsibility for "Cultural Impact" on our resources.

Moose have been studied throughout their range for well over a century. It is clear what ecological factors are important for moose survival. We know the natural model of predation most beneficial for moose. I see very little reason why we can't have a hunting program based on biology.

I want to encourage the Department of Fish and Wildlife, and Ron Regan as the most recently appointed Commissioner, to take this opportunity to make real change in the way the general public views hunting. Use this expansion to institute a density dependent permit process, based on field data that



The moose's expanding range calls into question how we manage - or manage for - a specie's recovery in past habitat. Photograph © Roger Irwin.

support actual regional moose population densities, and age and sex ratios.

Our predation, as well as our cultural impact, should be based in what we know about the natural system around us. We need to show the general public that using natural resources is not about our singular interests in what we take, but about our shared interest in the sustainability of what we leave. ☺

The Bright Side of New Hampshire's Proposed Wolf-Ban

by Kristin DeBoer

For the past three months, the State of New Hampshire has been considering two bills that would prohibit the reintroduction of wolves into the Northeast, and especially New Hampshire. These bills were a reaction to the US Fish and Wildlife Service's announcement that the agency plans to explore the possibility of wolf recovery (both by encouraging natural migration and by reintroduction) in an upcoming Northeast wolf recovery plan.

On the surface these bills appear to be a setback for the wolf recovery movement. In fact, they have helped the cause. Conservation groups across the region have come together with the goal of defeating these bills. Residents, who hadn't given a thought to wolf recovery, have been roused to speak out on behalf of democracy as the bills would stifle an open discussion of the issue. A flurry of letters to the editor and news stories have focused widespread attention on the wolf debate. Thousands of action alerts have been sent to New Hampshire residents alerting them of the issue. Hundreds of calls and letters to government representatives have put wolf recovery on the map. Meanwhile, these bills have exposed the raw fears and insidious myths about the "big, bad wolf" which remain the primary obstacles to the wolf's return.

On March 29th, the second hearing was held on these bills by the Wildlife Committee of the New Hampshire State Senate. Over 50 people packed the room, and most of them testified against the wolf-ban. While many people were undecided about whether wolf reintroduction was right for New Hampshire, they urged the Senate to allow the dialogue to continue so that they could learn more about the potential for wolves to come home to the Northeast.

The final vote on the proposed wolf-ban will be held in mid-April. Regardless of the outcome, these bills have taught wolf

advocates that it will take lots of hard work to achieve a successful wolf recovery program. We have seen first

hand how important education and outreach will be in addressing fears and misunderstandings about wolf recovery. We have also learned how much support is out there, just waiting to be roused into action on behalf of wolves. This was one of the first legs of a long, long trek. But, like any good journey, if we can pace ourselves, we will make it to the end. And, we must do so, for the sake of the wolves and the wild.

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The Deforestation of Lyman Mountain

by Channing Snyder

One of the most scenic places in the state of New Hampshire is Eaton Center, with that postcard view of Lyman Mountain framed by the Little White Church and Crystal Lake, that many have loved and now call home. Equally spectacular, is driving down that scenic highway 153, winding through the notchlands with a series of picturesque finger lakes and ending up at Purity Springs. These are truly unique treasures within the state of New Hampshire. Tourists love to visit these places, especially when the mountains are bright with autumn colored leaves. The headwaters of Eaton's aquifers, that feed this pristine lake system gush forth from Lyman Mountain. Yet hidden within this mountain paradise, war has been declared against nature. Many town residents have noticed scars beginning to appear on the mountains' slopes and on Glines Hill. They have noticed the daily convoy of logging and wood chip trucks rumbling through the village loaded with what used to be Eaton's old growth forest, once located on the slopes of Lyman Mountain.

Gone is that beechnut forest, high on the mountain side, where bears and eagles used to frequent; today they were chipped and burned. Gone are the 200-year-old big king pines that have stood there for generations; they were sawn up and sold for board feet. Gone is the sugar bush we used to tap; those trees are now firewood and pulp, and gone are oak groves that supplied abundant acorns that deer and wildlife used to forage on; these logs are now headed for Japan. Not even a dead feeder tree is left standing for the piliated woodpecker nor a habitat left for the great horned owl.

These forests are being decimated in the name of "cleaning up after the ice storm," "salvage logging," "removing the threat of fire" and "renewing the forest stand." I admit there are some merit to those arguments, but I fail to see why we should clearcut the forest and totally destroy the ecological balance in the name of "cleaning up after the ice storm." There is a school of thought that argues that it is better to leave the beech branches to rot into soil then to sell them off as chips for \$18 a truck load. In ten years, there will be a sorry brush thicket of a forest, that will stand in those places that were once inhabited by the old growth. Simply put, stripping over 75 percent of the biomass from the forest is a clearcut, even though you try and disguise it and pass it off as a selective cut. There should be laws banning this kind of forest management. These operations are being conducted on the steepest and most erosive mountainside slopes in Eaton, which should be cause of concern to the Eaton Conservation Commission and citizens who value their pristine lakes. When the spring floods come, we will be able

to measure the increased erosion and sedimentation flowing down tributaries, from Lyman Mountain into our lakes.

The power brokers that are pushing such logging operations through everywhere are forest owners and their unregulated property rights, local foresters who plan and encourage such operations, banks that capitalize loggers with millions for fleets of monstrous forest machinery, logging companies that strip the

with chainsaws. Multiply that times 10 machines and you have an indication of the sheer scale of these ongoing operations. It costs about \$700 per day, per machine to operate, and that is about what a landowner can expect from one truckload of white pine logs. It amazes me to witness the advance of forest harvesting technology over the last 30 years, and see how fast so many trees can be clearcut and transported, by so few men. The forest pays dearly for the host of middlemen with outstretched hands involved in such capital intensive operations from the landlord to the consumer.

Pleading with family members to stop or moderate logging activities or complaints to conservation commission members, selectmen, and even complaints about dragging streambeds without permits to state of New Hampshire Wetlands Bureau have fallen on deaf ears. There seems to be official endorsement of types of cuts such as these on Lyman Mountain, without serious consideration provisions. This has got to change! Developing and enforcing ecologically sensitive forest management methods and laws are in order. Laws with real teeth should be especially instituted governing people appropriate harvesting on critical landscapes, watersheds and their aquifers. Allowing only a 30 percent forest canopy cut quota per acre, landscape zoning on critical landscapes and protecting key wildlife habitats, might serve as workable ideas to open the debate.

Our family has been blamed for standing in the way of progress, and served twice with official papers for blocking Youngs Road to logging trucks in our own front yard. The only thing we should really be blamed for is trying to expose, in the court of public opinion, these crimes being perpetrated against Eaton's old growth forests. If you want to see an example of what I am describing, keep going up Youngs Road, "a town road," past our home until you see "this model forest operation." Don't mind the dogs, they like to bark at cars and logging trucks, but are actually quite friendly when you meet them personally. If we are around, welcome in for coffee, some fresh bread, and a forest policy chat.

Think globally and act locally.

Channing Snyder of The Appalachian Mountain Institute has a masters degree in environmental and soil conservation and can be reached at Box 100, Eaton Center, NH 03832. ☉



land to turn a profit, forest industries that buy up the delivered resources and pay off the others with the cash generated in national and international markets and finally policy makers who create forest, property and tax laws that favor exploitation over conservation. They are the axmen of special interests. Sadly, we consumers are equally guilty, because we blindly buy forest products and then throw them away.

One of my former students, a Finnish forester, once told me that a modern forest harvesting machine costing about \$150,000 could do the work of 20 men

Doing Deals in Maine

© 1999 Jym St. Pierre

There have been sales of papermills and large land holdings in Maine before. In fact, since the mid-1980s on average one major ownership has been sold every two years. But there has not been an avalanche of large land sales in Maine like the last half of 1998 and the first half of 1999 since...well, probably not since Maine was still a district owned by Massachusetts a couple of centuries ago.

In the past several months the pace of big sales in Maine has been dizzying. Some of them are sincerely good. Some of them are not all they are cracked up to be. Here is a guide to help you sort the seeds from the weeds.

fifth largest timberland owner in the United States.

In September, Robbins Lumber Co. confirmed that it desperately wanted to sell to the government a few hundred acres of islands and shorelands and development rights on the rest of its 22,000 acres of forestland in eastern Maine. The Robbins say they will have to subdivide a lot of the land if they are not paid millions of dollars. Their scheme is working. In February, the US Forest Service said they are making this their top priority in the Northeast with a million dollar allocation this year and millions more expected to follow. In March, the Land for Maine's Future Board made the Robbins property their highest pick out of 53 candidate properties. Some folks, such as retired woodsman Bill Butler, believe the islands the Robbins want to sell proba-

in Dixfield. In a public relations coup the Canadian conglomerate also persuaded Chuck Gadzik, former State Forestry Director, to go back through the industry-government revolving door to head up Irving's operations in Maine.

On November 2, Bowater announced another mega sale. This time 656,000 acres were being sold to McDonald Investment Co., of Birmingham, Alabama for \$155 million. McDonald Investment is owned by a secretive family with a diversified financial portfolio including land holdings in New Hampshire, New York, Florida, the Carolinas and Ontario. Wagner Forest Management of Lyme, New Hampshire, brokered the deal and will manage the new McDonald lands under the legal name Great Northwoods, LLC.

acres not as wilderness, but largely as working forest, with extractive and motorized activities (logging, hunting, trapping, snowmobiling, etc.). And it may sell or trade much of the land for logging to facilitate conservation of other lands. As with the McDonald purchase, Wagner Forest Management helped arrange the deal and will manage the timber.

On February 23, International Paper Co. announced it intends to sell its remaining 245,000 acres in northern Maine. The proposed sale involves all or part of thirteen townships, including full ownership in nine and partial ownership in four. The lands surround ten miles of the Allagash Wilderness Waterway, which is managed by the State as part of the National Wild & Scenic River System. Ron Lovaglio, Maine Commissioner of Conservation

PARTIAL LIST OF MAJOR LAND HOLDINGS FOR SALE IN MAINE AS OF APRIL 1999

DATE AVAIL	SELLER	PROBABLE BUYER	ACRES (Approx)	PRICE (Est.\$)	PRICE/ACRE(s)	NOTES
09/98	Robbins Lumber Co.	State of Maine (LMFB) USFS Forest Legacy Program	22,276	5,000,000	227	132 acres fee on islands, 243 acres fee shorelands 21,885 acres no-devel easement
02/99	International Paper Co.	NA	245,161	49,000,000	200	Includes 10 mi of Allagash
02/99	Bowater, Inc.	NA	359,000	71,800,000	200	2 mills available too
02/99	Georgia-Pacific Corp.	NA	446,000	89,200,000	200	In negotiations
03/99	Pingree Associates	New Eng Forestry Foundation	754,673	28,000,000	37.10	No-development easements
03/99	Plum Creek Timber Co.	Trust for Public Land for State of Maine	3,300	5,200,000	1576	29 mi shore on Moosehead, 15 mi on Kennebec River, 14+ mi on Flagstaff Lake.
03/99	Plum Creek Timber Co.	Trust for AT lands for State of Maine	4,000	NA	NA	Abuts Appalachian Trail on Mt. Abram

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Let's Make a Lot of Deals

In June 1998, South African Pulp & Paper Industries kicked off the liquidation sale of thousands of square miles of forestlands in Maine by putting its more than 900,000 acres in the state on the market. By October 6, Sappi had negotiated to sell its entire land holdings to Plum Creek Timber Co. for \$180 million. At the same time, Sappi had agreed to sell no-development shoreland easements on Moosehead and Flagstaff Lakes and the Kennebec River to the State. But that part of the deal soon fell through. Plum Creek is based in Seattle, Washington. The company has been on an aggressive land buying spree for the past ten years, scooping up large holdings in Montana, Washington, Idaho, Louisiana and Arkansas. With the purchase of Sappi's Maine lands Plum Creek became the

bly already belong to the people of Maine, under an old statute. In any case, the islands and shorelands are beautiful and deserve to be in full public ownership.

On October 21, Bowater, parent corporation of Great Northern Paper, announced it would sell nearly a million acres to J.D. Irving, Ltd. of New Brunswick for \$216 million. Great Northern had been the largest landowner in Maine for as long as anyone could remember. No more. By the time the deal closed in March, Irving, which already owned more than a half million acres in the state, had become king of the hill. Irving has also snagged some other big assets. The wealthy family-owned company has acquired Great Northern's large Pinkham Lumber mill in Ashland and the mammoth Highland Lumber white pine mill

On December 15, The Nature Conservancy announced the purchase of 185,000 acres in the St. John watershed from International Paper Company for \$35.1 million. Finally, conservationists had reason to cheer. Newspapers across the country ran headlines such as 3Group to Preserve Remote Wilderness.² The TNC purchase is extraordinary. It encompasses 40 miles of the longest free-flowing river left in the eastern U.S. The organization deserves huge credit for such a bold stroke. Indeed, Kent Wommack, executive director of the Maine Chapter of TNC, has been awarded the 1999 Down East Environmental Award for his leadership on the project. Nevertheless, there are shadows. The Conservancy plans to treat the St. John properties differently than its "preserve" lands. It expects to manage the St. John

and a former International Paper executive, says the State might be interested in buying some of the IP lands along the Allagash, but that Maine cannot afford to buy the whole quarter million acres. The lands are expected to sell for about \$50 million. IP is accepting offers from any serious buyer, private or public, industrial or romantic. Bids are due by mid-August with closing by October.

On March 3, Pingree Associates, the largest family ownership in Maine, announced they had struck an arrangement with the New England Forestry Foundation to sell no-development easements on three-quarters of their nearly million acres. NEEF has two years to raise \$28 million to buy the development rights on 754,673 acres of

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Pingree lands in northern and western Maine. They say they intend to get the money from private sources, but they will not rule out that some may come from public funding. News stories and editorials across America have touted this as the largest conservation easement in the history of the United States, perhaps the world. Unquestionably there are superlative aspects to the proposal. There is enormous value in protecting from development more than 2,000 miles of water frontage, the shorelines of more than 85 lakes and ponds, scores of sensitive plant sites, and half a dozen bald eagle and peregrine falcon nests. However, there is much more to the story than has been told.

In mid-March another substantial land sale hit the news. The buyers were again Alabama investors and Wagner Forest Management again engineered the purchase. The transaction involved more than 90,000 acres in western Maine formerly owned by the Stowell family through Highland Lumber Co., a subsidiary of their United Timber Corp. Highland Lumber sold the land for an undisclosed sum as part of a bankruptcy settlement.

On March 25, Plum Creek Timber Co. announced it intends to sell to the State for \$5.2 million more than 65 miles of shoreland from the 905,000 acres it just picked up. The deal is a complicated, multi-party trade and sale, but it involves essentially the same lands the State was supposed to buy easements on last fall from Sappi, plus another 4,000 acres on Mount Abram near the Appalachian Trail and some frontage on the Kennebec River at the Forks. What does Plum Creek get? It gets some sorely needed good publicity, it gets to unload shoreland that is tough to manage because of state regulations, it earns more than a seven-fold return over the purchase price paid just six months ago, and it increases its land base in Maine by about 7,500 acres.

There have been some relevant major sales recently just outside the borders of Maine too. On March 25, American Tissue Corp. said it is buying the Crown Vantage pulp and paper

mills in Berlin and Gorham, NH, for \$45 million. The mills draw fiber from western Maine as well as from New Hampshire and Vermont

On April 9, Georgia-Pacific Corp. announced the sale of 390,000

state, a pulp and papermill, a stud mill, and a composite board plant.

Those are the actual blue light special land sales. There has also been at least one virtual sale. On the March 8 television program Law & Order

Funding Buyers for a Buyers Market

The unprecedented land sales in the Maine Woods have presented a tremendous opportunity for private buyers. And plenty have taken advantage. But the blowout sales have left the public mostly on the sidelines.

Many conservationists have contributed millions of dollars to direct land acquisition and they deserve terrific credit. The Nature Conservancy, Trust for Public Land, Maine Wilderness Watershed Trust, North Woods Wilderness Trust, Sweet Water Trust, Trust for Appalachian Trail Lands and other private conservation groups and generous individuals have given wildlands philanthropy a new lease on life in Maine. Still, there are some troubling questions. Nor can we fairly expect the private sector to do it all for us. Where are our state and national governments in protecting the public interests at risks?

The State of Maine has little money of its own and a hostile attitude toward federal acquisitions. It also has been demonstrating a powerful confusion over whether wilderness is repulsive or attractive. Gov. Angus King insists that "I'm not going to devastate the economy of northern Maine for some extreme notion of wilderness." However, his Maine Office of Tourism recently published a glossy brochure that advertises "Most of the state remains as pristine as a primal forest."

The beat of ambivalence over public lands is pounded out daily in the Legislature as well. So far this year there have been bills ranging from a cap on the amount of public lands, to bonds of up to \$120 million in new state land funding, and everything in-between. Gov. King is supporting a \$50 million bond (\$10 million for each of five years) in new Land for Maine's Future money, to be matched by \$25 million in private funding. The final cut is likely to be close to that.

Meanwhile, the federal government is anxious to get into the act. Last year the Clinton Administration identified the Northern Forest region as one of only three Focus Ecosystem regions nationwide for 1999. That brought national attention but not much cash to our neck of the woods.

For Fiscal Year 2000 the Administration is proposing a pair of relevant programs. A new \$1 billion Lands Legacy Initiative would make available \$442 million next year for federal acquisitions including about \$53 million to acquire a hundred thousand acres of national lands in New England-New York. Another \$150



acres, all of its timberland in New Brunswick, to the provincial government for \$41 million. The land includes more than two-thirds of the St. Croix watershed in Canada. Unlike Maine, New Brunswick recognizes the value of public lands. Approximately half of the province is already in public ownership, nearly eight million acres. Georgia-Pacific also acknowledged it is in negotiations to sell its 466,000 acres in Maine. That leaves the future uncertain for G-P's three mills in the

one of the bad guys was supposed to be negotiating a deal to sell family timberlands to the State of Maine. The large land sales in the Maine Woods have even made it into the script lines of American prime time TV, the most universal of cultural icons at the trailing edge of the millennium. Whatever happens on network television the real estate Sale of the Century in Maine is far from over.

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million would be for matching grants to states and \$50 million for forest legacy easement grants to states. The Clinton-Gore Smart Growth/Livable Communities Initiative would make another billion dollars available for preserving farmland, suburban green spaces and local parklands as well as incentives to control sprawl. Of course, those are proposals mostly to boost Al Gore's presidential campaign.

Congress expects to have something to say about appropriations. Rep. Don Young (R-AK) and Senator Mary Landrieu (D-LA) have introduced bills to fully fund the languishing Land and Water Conservation Fund. The catch is that there would be huge incentives to increase off-shore oil drilling in their coastal states. Rep. George Miller (D-CA) and Senator Barbara Boxer (D-CA) have better bills, which would provide permanent annual funding of over \$2 billion without the drilling incentives. The Miller bill is H.R. 798; the Boxer bill is S. 446.

We will know by June how much Maine is likely to pony up for public land purchases. By October the Congress and the President are supposed to have worked out their political budget deal. Stay tuned.

What does it all mean?

There are a number of important questions and significant conclusions that can be teased out the recent and ongoing big land sales, easement deals and power struggles in Maine.

First, why is this happening? Forest historian David C. Smith of the University of Maine prospectively answered that question ten years ago:

Lowered prices, southern competition, the shift to nonwovens and plastics, the problems posed by recreational uses, state and inheritance taxes, wider and more remote ownerships, and quarterly dividends all have as their greatest energy the need to maximize profits; and in the short run, that appears to require divestment and reinvestment elsewhere.

The search for better short-term returns may be driving the real estate selling frenzy, but there is something else going on too. Many of the big land sellers have been able to get somebody to pay them cash for their land, to take on the responsibility for paying taxes and insurance, to manage public recreation on their private lands, to incur the exposure of loss to wind, ice, fire, insects and disease. And, to top it off, the sellers have been able to get the new owners to sign long-term agreements to help supply their fiber needs. Such a deal. Why put up with the headaches of land ownership when you can get all the benefits with none of the risks?

Second, who are the new kingpins? The old lords of the great northern kingdom have been overthrown. The accompanying table shows the new pecking order of major land ownerships. The industrial paper corporations are still big players on the whole. However, there have been some fundamental shifts in the traditional ownership patterns.

For one thing, the type of ownership mix has changed. Institutional owners are coming on strong. Some are family groups who have made a killing in the bull market of the 1980-90s and are looking to diversify their investment portfolios by adding cheap real estate. Some are insurance companies and pension firms looking for a reasonable, if not spectacular, return on investments so they can make regular payments to their clients.

For another thing, the mix of ownership sizes has changed. Maine had a very small number of very large owners and a very large number of very small owners. The breakup of several of the big guys has led to a number of new medium sized owners in the hundreds of thousands of acres range.

With ownership of 1.6 million acres, the giant Canadian conglomerate J.D. Irving has succeeded in its long standing objective of securing a majority interest in the state of Maine. Forbes says, through a web of privately held companies, the Irvings already "control an empire that dominates Atlantic Canada's commerce." The magazine estimates their net worth to be \$4 billion. Now the Irvings can continue to use their powerful regional market positions in forest products, papermaking and packaging, shipbuilding, trucking, oil shipping and refining, gasoline sales and restaurants to pursue their goal of expanding into the lucrative East Coast markets and beyond.

Less obvious is the fact that a dark horse has become runner-up. The mainstream media have completely missed the news that Wagner Forest Management of Lyme, NH, has quietly maneuvered into second place in amount of land controlled in Maine. Wagner has been finding people to put up money to buy big pieces of forestland, which Wagner manages as sort of a family of forestry mutual funds. Wagner now oversees two million acres in Maine, New Hampshire, Vermont, New York and Ontario. In Maine that includes approximately 1.3 million acres: McDonald Investment's 656,000 acres, The Nature Conservancy's 185,000 acres, Hancock Timber's 380,000 acres, the 91,000 acres of bankrupt United Timber properties just sold to a couple of Alabaman investors, plus, very likely, smaller ownerships totaling thousands more acres.

Hank Swan, patriarch of Wagner, has sold the company to his management team, but he continues to speak for the firm. They employ about 70, including 40 foresters, and plan to hire more. So that they can focus on forestry, Wagner also plans to spin off lands for its clients which are 3 better suited for other uses, including development,² according to Swan. That probably means they plan to start marketing shorelands that will bring top dollar. Nor is it likely Wagner is done arranging land purchases in Maine or other parts of the Northern Forest.

Third, what is the public getting? So far, not much public land permanently preserved. There are three possible public interest buyers--our national government, our state government, and private conservation organizations. To date there have been no big federal acquisitions in the Maine Woods during the landslide of land sales. The power structure--Governor Angus King, the Maine congressional delegation, key legislators, the forest industry, the hunting, trapping and snowmobiling special interest lobbies, private property extremists, and some conservation groups--have joined to block any federal acquisitions. A CNN news report in January that the Clinton Administration planned to spend tens of millions of dollars on federal purchases in northern Maine was wrong. And the debate in Congress about increasing funding for conservation acquisitions, at least as it

MAJOR LAND OWNERSHIP

IN THE STATE OF MAINE

April 1999

Land Owner (approx)	Headquarters	Acres
1. J.D. Irving, Ltd.	St. John, New Brunswick	1,550,000
2. Pingree Associates, Inc. (Managed by Seven Islands Land Company)	Bangor, Maine	941,000
3. Champion International Corporation	Stamford, Connecticut	920,000
4. Plum Creek Timber Company, L.P.	Seattle, Washington	905,000
5. Prentiss & Carlisle Management Company (Managed for various land owners)	Bangor, Maine	900,000
6. State of Maine (Only "conservation" lands, including easements)	Augusta, Maine	868,000
7. International Paper Company (IP Timberlands Operating Co, Ltd.)	Purchase, New York	730,000
8. McDonald Investment Company (Managed by Wagner Forest Mgt)	Birmingham, Alabama	656,000
9. The Mead Corporation	Dayton, Ohio	550,000
10. Georgia-Pacific Corporation (Managed by The Timber Company)	Atlanta, Georgia	446,000
11. Huber Resources Corporation	Edison, New Jersey	438,000
12. Bowater, Inc. (Great Northern Paper)	Greenville, S. Carolina	359,000
13. Hancock Timber Resouce Group (Managed by Wagner Forest Mgt)	Boston, Massachusetts	380,000
14. Fraser Paper, Ltd. (Noranda Forest, Inc.)	Stamford, Connecticut	238,000
15. The Nature Conservancy--Maine Chapter (185,000 acres managed by Wagner Forest Mgt)	Brunswick, Maine	210,000
16. United States Government (Only "conservation" lands, including easements)	Washington, DC	191,000
17. Passamaquoddy Tribe	Indian Twp., Maine	138,000
18. Penobscot Nation	Old Town, Maine	123,000
19. Dunn Timberlands	Ashland, Maine	110,000
20. Stetson Timberlands	Quebec, Canada	109,000
21. Baskahegan Company (Milliken Family)	Falmouth, Maine	108,000
22. New River Franklin Ltd, Buckfield Timber LLC (Managed by Wagner Forest Management)	Alabama	91,000

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pertains to the Maine Woods, has focused not on federal purchases, but on revving up grants to the states in the wake of zero funding on that side of the equation the past four years.

Despite this, or perhaps because of it, the campaign supporting creation of a new Maine Woods National Park and Preserve continues to gain momentum. More than 75,000 citizens have signed petitions calling for a full public study of the park idea. Scores of

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Deals...

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businesses have signed on. Dozens of state, regional and national conservation groups are coalescing around the idea. Sierra Club, for instance, has made the Maine Woods National Park and Preserve one of its top six national wildland priorities. The philosopher Arthur Schopenhauer said "Every truth passes through three stages before it is recognized. In the first, it is ridiculed. In the second, it is opposed. In the third, it is regarded as self-evident." The Maine Woods National Park campaign is already in the second stage well on the way to the third.

While the feds are being held at arms length, the State is missing opportunity after opportunity to acquire wildlands. Governor King had a handshake arrangement with Sappi to purchase development rights on a few shorelands. That fell apart over a disagreement on price. Now the Governor has an understanding with Plum Creek that Maine will buy shorelands along Moosehead and Flagstaff Lakes and the Kennebec West Outlet. But he has yet to convince the legislature to fund the \$5.2 million purchase price of those beauty strips. The State is also working to help fund the acquisition of easements on the Robbins brothers' forestlands at Niatous Lake. Aside from those projects, the State has been a bystander watching the massive wildland sales whiz by. Little change in that is likely even if a substantial Land for Maine Future bond is approved by the voters next fall. Most of that money would go to projects in southern Maine.

In the absence, then, of major federal or state action, the private conservation groups have had to step up to the plate. The Nature Conservancy's purchase of 185,000 acres from International Paper in the St. John watershed is the biggest conservation project completed to date. The Trust for Public Lands, the Trust for Appalachian Trail Lands and several other groups are involved with the pending Plum Creek deal. The Forest Society of Maine is choreographing the Robbins' easement deal. The New England Forestry Foundation is beating the bushes to raise tens of millions to buy the Pingree development rights. Some of these are deals are

much deeper green than others, but they all beg the question of how long we can expect to rely on the private sector to do the public's business.

Fourth, what is the right balance of public and private lands for Maine? There is no definitive quantitative answer. State of the art science points to the need for much more permanently protected and connected land. State of the debate opinions range from no public lands to as much as possible. For now, the Maine Economic Growth Council, the Land Acquisition Priorities Advisory Committee and the mainstream conservation groups have settled on aiming to double the amount of public land in Maine by 2020. More progressive thinkers realize we need at least twice as much as that.

Fifth, is protection of a few "strategic" lands good enough? Many argue if we bring more shorelands and high value recreation spots into full fee public ownership or at least acquire development rights in such areas, we can save the most important public values

without taking lands out of forest production, and often without taking them off the

tax rolls. Others say we need to be protecting on a landscape scale, that wildlands are a rarity and a bargain not to be passed up at the current wholesale prices, and that the long-term ecological services and economic values of public lands typically provide a higher return to the public than private lands.

Actually, we need both. It is helpful for the State to focus its limited resources on carefully targeted special areas to provide some interim protection. However, we cannot afford to keep our national partner on the sidelines. Without tapping the resources of our national government we cannot finish the job. The proposed state acquisition of shorelands from Plum Creek, for instance, is certainly better than the beauty strip easements the State was going to get from Sappi. But we need to not forget that the other 898,000 acres Plum Creek owns in Maine include a lot of significant areas, such as lands on the west shore of Moosehead, which are going to remain vulnerable. Acquiring a few beauty strips does not preserve biodiversity across the landscape. It is only a downpayment on the larger task.

Sixth, are no-development easements the panacea they are being portrayed as? No. Conservation easements were pioneered for use on relatively small, high value properties, such as coastal islands. And for years most were donated to public agencies and public interest groups. Such easements are not a good instrument to ensure sustainable forestry, they are not usually designed to preserve ecosystem integrity, and they could quickly drain the public and philanthropic coffers. Conservation easements are an important tool, but there is great potential for misusing them. It is like appropriate technology. If you need to drive a nail, don't grab a screwdriver.

The proposed Pingree easements, a case in

uneasement lands. However, there have apparently been private discussions between the Pingrees and LURC staff about using the easements as an offset to get permission for more intensive development than would be allowed otherwise on the uneasement lands. In short, we have plenty of private working forest. We need public wilderness. The Pingree easement deal is neither public nor wilderness.

People should be skeptical also of proposals like that being pushed by the Robbins brothers to sell to the public easements covering large upland areas. Indeed, there is a huge irony in the Robbins turning to the government for relief. This is the same Robbins family who helped lead the charge to kill the Ban Clearcutting referendum a few years ago, who allied with Mary Adams to kill even the modest Forest Compact in two statewide votes, who fronted for the paper companies to kill the reasonable four-point forestry plan in the legislature last year, who has led the hardliners in ousting the moderates and taking over the leadership of the Maine Forest Products Council, and who endlessly whine about getting the government off their backs. According to the newsletter of the Maine Forest Products Council, the industry lobby group which Jim Robbins chairs, "he has reservations about spending millions of [dollars of] taxpayer's money to transform large expanses of productive timberlands into non-tax-paying public lands." However, he seems to have no qualms about trying to extort millions of taxpayer dollars for personal financial gain. At least the Pingrees are going to try to avoid taking public funding for their easements.

What questions are not being asked? Yes, there has been some public discourse about the causes of the big land sales, whether the public should have funding to be a bidder, what the roles should be of the different levels of government, how much public land we need, and the value of easements versus full public ownership. But there has been little debate about the

LARGE LAND SALES IN MAINE, 1998-1999 AS OF APRIL 1999

SALE DATE	SELLER	BUYER	ACRES (Approx)	PRICE (Million \$)	PRICE/ACRE
10/98	Sappi Forests	Plum Creek Timber Company	905,000	180	199
12/98	International Paper Co.	The Nature Conservancy	185,000	35.1	190
02/99	Bowater, Inc.	McDonald Investment Co.	656,000	155	236
03/99	Bowater, Inc.	J.D. Irving, Ltd.	981,000	216	220
03/99	United Timber Corp.	New River Franklin, Ltd, Buckfield Timber LLC	91,000	NA	NA
TOTAL			2,818,000		

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point, raise many serious issues. Most of their land is so remote it would not likely be under development pressure for a long time. So Pingree Associates will get paid to not develop land most of which would not have been developed anyway. They get to keep all the other use rights, so they can log the land indefinitely and the easements would not prevent overcutting. Public access would not be guaranteed and nothing would change concerning protection of wildlife habitat or preservation of biodiversity. New England Forestry Foundation has revealed that they "will be exploring selling some of the easement rights to utility companies that burn fossil fuels as a way to offset the carbon they are releasing into the atmosphere." That could set a horrific precedent if polluting companies can get global climate change credits for "protecting" forestland that is not fully protected.

Meanwhile, the fate of the lands not covered by the easements hangs in the balance. Steve Schley, president of Pingree Associates, has told the Land Use Regulation Commission they "don't have any plans for development" of the 200,000 acres of

fundamental social, economic and environmental costs and benefits of working forests compared to wilderness. There has been little debate about whether it is in the long-term public interest for Maine to perpetuate policies that ensure the state will remain a third world economy with an over-reliance on resource extraction and half the real property controlled by absentee, corporate managers driven by the vagaries of the global market.

There has been little debate about why so many Canadian woods workers are employed in Maine and whether there is a forestry future for traditional forestry towns like Allagash, Ashland and Millinocket.

Until we confront some of these enigmas most of the public discussion will focus on the issues at the margin. At the margin is certainly where the anti-environmental movement wants to keep the debate (see Whining at the Margin, page ??).

The Sale of the Century continues in Maine. While some good conservation gains are being made, with one or two exceptions, they are small or inadequate or misleading compared to the need and the opportunity. The private landowners and the State can and want to preserve some beauty strips backed by vast areas of working forest. They cannot and will not protect big public wilderness, which more than anything is what we need in the Maine Woods. The people of America can and will have to do that. ☺

Whining at the Margin

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The environmental backlash movement--if it is not an oxymoron to call something that is stalled a movement--has flared up in Maine in a variety of forms during the past several months.

November: The First Northern Maine Constitutional Convention was held in Lincoln. The plan to split away from Southern Maine went nowhere fast. A new state of Northern Maine would lose the subsidies from the hot economy in southern Maine. And by staying within the USA, Northern Maine would not be eligible for foreign aid. But the loony threat of succession will continue to be used by the restless, mostly non-natives who are leading the charge. They want to draw attention to their legitimate grievance of always being shoved to the back of the bus.

December: George Smith, executive director of the Sportsman's Alliance of Maine, used a cabinet room news conference called to announce The Nature Conservancy's acquisition of lands along the St. John River to push his own agenda. He said of TNC deal, "This shuts the door on the federal government and RESTORE's attempt to create a national park on these lands." Actually, neither the federal government, nor RESTORE, nor anyone else has proposed that the lands bought by TNC become a national park. George Smith never cared much for facts.

January: A news conference was held in the State House by a wholly owned subsidiary of the group Unorganized Territories United. In front of a large banner touting "Keep Maine Free, No More Government Land," the usual suspects spoke: Jon Reisman, Robbie McKay, Roger Ek, Bud Landry, Dave Guernsey, Senator Paul Davis, Rep. Henry Joy. A few of them wore sweatshirts that said "Our home is not your park." Their message discipline was poor; they variously spoke about not supporting any public lands, any more public lands, any new public lands in northern Maine, any state lands, any wilderness lands, any ecological reserves, etc. Most equated public lands with communism. Most of the speakers targeted Angus King (for supporting the Land for Maine's Future program and for saying we need to address the problem of sprawl) and the Northern Forest Alliance (for pushing the Northern Forest Stewardship Act).

The most amusing and terrifying part of the UTU news conference was Jon Reisman's climatic theatrics. Reisman is a professor at the University of Maine at Machias, so he must know what he is talking about, right? He unveiled half a watermelon and a huge machete. Then he pronounced, "If you crossed the forest compact with Karl Marx, these government lands proposals are what you'd get. They are watermelons: large, full of sugar water, green on the outside and red on the inside. We're going to slice them wide open." When the machete came down on the fruit, it not only sliced the watermelon in half, but the cutting board too. I was sitting just the other side of the table. After the news conference I warned him that he almost hit me with his shrapnel. He was more worried about ruining the cutting board, which had been a wedding present. So much for family values.

February: A hearing was held on one of the dozens of silly bills introduced this year by state Rep. Henry Joy. LD 299 would have transformed the 51 percent of Maine which is in unorganized territories under the jurisdiction of the Land Use Regulation Commission into the world's biggest town. The idea was to give the 7,000 or so souls that live in the UT more say over the land use policies in effect there. The bill was DOA. LURC has been around for three decades now and while it will never be much more popular than the IRS, more often than it has served its purpose of representing the statewide interest in the unorganized townships. If anything LURC needs to be strengthened, not eviscerated or replaced. Joy skulked away from the hearing to refine some of his other brilliant ideas. Like his bill to require that any-

one hiking, canoeing, kayaking or off-road biking be licensed unless they already have a license to hunt, fish, snowmobile or drive an ATV. Maybe we need a surcharge on legislators who waste taxpayers' money on such frivolous spam.

Seeing their cries making no impact, in late February the Just Say No crowd brought in reinforcements. Roger Pilon, a senior fellow from the arch-conservative Cato Institute, spoke at a legislative lunchtime rally sponsored by the Maine Property Rights Alliance. Pilon's theme was that socialism is masquerading these days as environmentalism and that if government wants to protect "wildlife habitat or lovely views" it must pay. Regulations to protect public values on private lands are unconstitutional unless landowners are compensated. Or as he summed up: "Stop stealing our property. Pay for it." A number of lawmakers wandered in and out obviously more interested in the free lunch than the free lecture.

Some leaders of the wise guise movement do not think that even land conservation purchases on the open market are acceptable. For years private property extremists have argued, "If you want to control it, buy it." Now that conservationists are buying it the rightwingers are calling for another hard right turn in their strategy. Bob Voight, founder of the Maine Conservation Rights Institute, says "Now the enviros...plan to buy what they want. Thus the landowners must change their defense....What flag should the property rights activists rally around now?...The concept of removing private land from our tax rolls and making it 'public' is anathema to our concept of freedom and individual ownership."

Mary Adams, private property gadfly, was even more to the point in her assessment of The Nature Conservancy's St. John River acquisition. "This makes what I consider the enemy a major pretend player in the woods business. It will be wine-and-cheese logging and a lot of restrictions." Just cannot please some folks.

March: In mid-March the Maine Pulp & Paper Association sponsored its annual Paper Expo at the Augusta Civic Center. To show they have a sense of humor, during the exposition, on March 17, St. Patrick's Day, the forest industry lobby group hosted a reservation-only legislative breakfast featuring Dr. Patrick Moore, "former environmentalist and co-founding member of Greenpeace." Moore has a national reputation as a turncoat who sold out to capitalize on his old conservation connections. MPPA insisted that "Moore's environmental credentials are impeccable." So are mine, but they didn't ask me to speak. After breakfast a gaggle of industry lobbyists drove across town to jam a legislative hearing on a bill to open up to public scrutiny more logging reports filed with the Maine Forest Service.

By the way, you will be reassured to know that the Maine Forest Product Council, the other major forestry lobby group in Maine, in March privately developed "a comprehensive new forest policy for the state of Maine." The confidential document says that "When adopted by policy makers, this policy will strengthen the role that Maine's forests play in the lives of all Mainers." Gosh, they must have forgotten that public policy is supposed to be formulated by public officials in public meetings.

April: In April the wise guise held another real estate rally at the State House. The theme this time was "Keep Maine Lands in Maine Hands" by which they seemed to mean absentee corporations. Chuck Cushman, head of the American Land Rights Association and widely known as Mr. Rent-a-Riot, was MC. He choreographed statements by half a dozen state private property rights leaders. Several targets were mentioned, including the "Billion Dollar Trust Fund" (apparently a reference to the Clinton Administration's proposed Lands Legacy Initiative), the Northern Forest Stewardship Act (which has not been reintroduced into Congress, but "could come

back"), and the National Park Service land grab ("The Park Service wants 5 to 10 million acres in Maine" according to Cushman, although no one at the Park Service knows about that goal). However, most of the focus was on the long-standing fight over the Appalachian Trail on Saddleback Mountain.

Paul Madore of Lewiston, a prominent anti-abortion and anti-gay rights activist who has taken up lands issues now, twice rose from the audience to say that extremists, "like Jym St. Pierre sitting here," are working with the Northern Forest Lands Council, the Northern Forest Stewardship Act, and the Northern Forest Alliance to do naughty things. We must "drive these guys out of the state." Never mind that the Northern Forest Lands Council went out of business in 1994, that the Northern Forest Stewardship Act died in Congress last year and I never supported it anyway, and that I have not been affiliated with the Northern Forest Alliance for years. I told Mr. Madore he was factually wrong in his statements about me. He said he did not care, that it was "a difference without distinction."

The rally attracted little support from property rights advocates, virtually no interest from legislators and not a single reporter except me (you are reading my report). It did attract about 15 curious environmentalists. In fact, nearly all of the rallies put on by the wise guise lately have fizzled. Besides the Reisman, Pilon and Cushman events, none of which generated support for their anti-public lands agenda, a forum in Brewer attracted only a couple of hardcore extremists and a number of legislative hearings on anti-public lands bills have drawn at best a trickle of supporters. The most attention the naysayers have gotten lately was front page coverage of a protest at a global climate change conference in Lewiston. The protesters claimed global warming is a conspiracy involving state and national environmental regulators, nonprofits groups, and United Nations officials, which will result in the loss of 7,000 jobs in Maine. They handed out information from the Greening Earth Society. The fine print in the back said the "Greening Earth Society, a creation of Western Fuels Association, Inc...[works] in partnership with the National Mining Association in resisting EPA's initiative to regulate CO2 as a pollutant under the Clean Air Act."

The story the news media missed was the ironic twist that the owner of the conference center got into a scuffle with the protesters because they would not leave his private property. So much for the sanctity of private property rights. ☺

NARP Seeks Fundraiser

The Northern Appalachian Restoration Project is seeking a fundraiser who would work under contract to raise funds for the support of our field projects and The Northern Forest Forum. Qualifications include strong writing and communication skills, ability and experience in functioning independently, as well as knowledge of the issues and geography of the Northern Forest region. An appreciation for odd, quirky yet highly motivated people is a must. For more information please write NARP POB 6 Lancaster NH 03584 or telephone 802-748-8043 or email: nff@sover.net.

Selected Deep Ecology and Other Readings

A note: There are many different personal paths to deep ecology awareness. That is, different paths to a fundamental shift from human-centered to ecocentric consciousness, in the way we relate to the Earth and the natural world around us. Many of these paths have little to do with reading books. Deep ecology provides the philosophical base for the radical ecocentric Earth First! environmental movement. Studying this philosophy of deep ecology, deepens activist awareness. On my own personal journey, the following books have been important. They are listed below for those who want some readings in deep ecology. There are other deep ecology and related books, (for example women authors like Delores Lachapelle and Robyn Eckersley) but this list may get you started on your own journey. *David Orton*

Arne Naess, "The Shallow and the Deep, Long-Range Ecology Movement. A Summary", *Inquiry* 16 (1973) 95-100. This is the original, now famous article by Arne Naess, the Norwegian philosopher and founder of the deep ecology movement, which first made the now familiar distinctions between 'shallow' and 'deep' ecology. This article, although of historical interest, has been superseded by the eight-point **Deep Ecology Platform** worked out by Naess and the U.S. deep ecologist George Sessions in 1984. It is this widely accepted eight-point Platform, which now serves as a common basis of unity and guide to action within the deep ecology movement.

Arne Naess, **Ecology, community and lifestyle**, 1989, Cambridge University Press. Reading this book is the best single introduction to the depth, complexity (and obscurity) of the deep ecology of Arne Naess.

George Sessions, editor, **Deep Ecology For The 21st Century: Readings On The Philosophy And Practice Of The New Environmentalism**, 1995, Shambhala Publications. Sessions has played an important role in introducing and popularizing deep ecology in North America. This book is divided into six sections, with excellent introductions by Sessions to each of the sections, which themselves contain essays by representative thinkers within or having influence on the deep ecology movement.

Andrew McLaughlin, **Regarding Nature: Industrialism, Environmentalism, and Deep Ecology**, 1993, State University of New York Press. A very important book, which combines a deep ecology, bioregional and social justice perspective, in its clarifying analysis of the roots and destructiveness of industrial society. This book in many ways has provided support for the theoretical tendency within deep ecology known as 'left biocentrism'. McLaughlin has also written on what he calls the 'heart of deep ecology', the unifying eight-point Deep Ecology Platform.

Richard Sylvan and David Bennett, **The Greening of Ethics: From Human Chauvinism to Deep-Green Theory**, 1994, The White Horse Press. Sylvan, an Australian forest activist and academic philosopher who died in 1996, was the 'bad boy' of the deep ecology movement and also a personal friend. Sylvan was the sophisticated critic of intellectual fuzziness of writings within the deep ecology movement. He outlined these views in the 1985 **A Critique Of Deep Ecology**, published by The Australian National University. The same Critique was published in two parts, in the journal **Radical Philosophy** 1986, 40 and 41: 2-12 and 1-22. Sylvan, with his 'deep green' theory has been an important influence on left biocentrism.

Rudolf Bahro, was a German green philosopher and activist who died of cancer in 1997. His influence is enormous, particularly from a European perspective. He explored with a ruthless honesty the real contradictions for a left wing person of moving to a deep ecological consciousness. He saw the necessity for a personal and societal spiritual change if Earth destruction was to end. Industrialized countries like Germany, the United States and Canada, needed to reduce their impact upon the Earth to one-tenth of what it was. For Bahro, "The earth can belong to no one" and "The ecological crisis will bring about the end of capitalism." There are five books available in English. Start with **From Red to Green**, 1984 and then move on to his difficult but inspiring final work, **Avoiding Social and Ecological Disaster: The Politics of World Transformation**, subtitled "An Inquiry into the Foundations of Spiritual and Ecological Politics", 1994, Gateway Books, Bath, England. Bahro, in a Dec. 1995 letter, declared his agreement "with the essential points" of left biocentrism.

John Livingston, **The Fallacy of Wildlife Conservation**, 1981, McClelland and Stewart Limited; and **Rogue Primate: An exploration of human domestication**, 1994, Key Porter Books. A powerful Canadian eco-philosopher and naturalist who David Suzuki has described as his mentor. For Livingston, wildlife has to be valued and defended for its own sake. Giving rational arguments for wildlife preservation is to accept the logic of industrial society. In the latest book, Livingston says that humans are the only animal that have entered domestication on their own. So-called resource conservation, "is a wholly proprietary, human-chauvinist concept."

Saral Sarkar, **Eco-Socialism or Eco-Capitalism? A Critical Analysis of Humanity's Fundamental Choices**, 1999, Zed Books, London, England. While not a deep ecology perspective, this is an important book for those concerned about whether or not it is possible to fuse the radical ecology and the socialist movements. Sarkar believes it is possible, providing socialism is prepared to redefine itself and learn 'the ecological lesson' from the radical ecology movement. This book gives an ecological critique of all forms of socialism, a critique of green politics and an insightful examination of traditional cultures and what can be learnt from them. Sarkar was born in India and has lived in Germany for many years. He is the author of the historical work, **Green-Alternative Politics in West Germany** (2 vols), 1993 and 1994, United Nations University Press.

Other Important Books

Clive Ponting, **A Green History Of The World: The Environment and the Collapse of Great Civilizations**, 1991 Sinclair-Stevenson Limited, England. It looks at world history, e.g. what happened to Easter Island, from an environmental perspective. A fundamental book to give a sense of ecological and historical place. However, this book will not come out and condemn industrial civilization and speak of an alternative.

Aldo Leopold, **A Sand County Almanac: With Essays on Conservation from Round River**, first published in 1949, Sierra Club/Ballantine Book. Leopold illustrates in his life and writings, the transition from U.S. forester and game manager to environmental philosopher. His thinking, writings, and metaphors e.g. the Land Ethic, 'thinking like a mountain', 'round river rendezvous', 'green fire', have become part of the consciousness of radical environmentalism in North America. Leopold's environmental ethics has become influential: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

Calvin Luther Martin, **Keepers Of The Game:**

Indian-Animal Relationships and the Fur Trade, 1978, University of California Press; and **In the Spirit of the Earth: Rethinking History and Time**, 1992, The Johns Hopkins University Press. These two important books aid in realistically understanding aboriginal land ethics, past and present. They also give insight, I believe, into understanding a potential relationship between an indigenous animism and deep ecology.

Olive Patricia Dickason, **Canada's First Nations: A History of Founding Peoples from Earliest Times**, 1992, McClelland & Stewart Inc. This is a progressive and detailed source of information from Metis historian Dickason, on the aboriginal peoples living in Canada.

Bill Devall, editor, **Clearcut: The Tragedy Of Industrial Forestry**, 1993, Sierra Club Books/Earth Island Press. The book for ecocentric forestry activists. It shows the totally destructive ecological impact of capitalist industrial forestry in Canada and the United States, that is clearcutting. It has illustrations from each province in Canada and each state in the U.S. This book also has examples of an alternative forestry, influenced by deep ecology and a wholistic ecological world view.

Edward Abbey, **The Monkey Wrench Gang**, 1975. A politically incorrect novel about monkey wrenching in the U.S. South West desert country, by four people who band together in the tradition of the Luddites. This novel has inspired many to activism. As Abbey says in this book through the character Doc Sarvis: "Let our practice form our doctrine, thus assuring precise theoretical coherence."

Earth First! Journal is published 8 times a year. This is the activists' newspaper in the U.S. and Canada for the "no-compromise environmental movement". Every ecocentric radical activist in Canada and the States should read this on a regular basis. Address: POB 1415, Eugene, Oregon 97440, U.S.A. E-mail: earthfirst@igc.org

Left Biocentrism

This is a left focus or theoretical tendency within the deep ecology movement. There is a ten-point **Left Biocentrism Primer** which presents a summary of the position. There is also an internet discussion group called 'left bio' which supports the Primer and whose members take part in theoretical and practical discussions.

For a consideration of some ideas important to left biocentrism, see in particular the following two Green Web Bulletins:

#63 "My Path to Left Biocentrism: Part I - The Theory," by D. Orton, April 1998. This Bulletin is a theoretical introduction to the left biocentric tendency within the deep ecology movement. Part I includes the important thinkers for a left biocentric synthesis, and discusses the continuities and discontinuities of left biocentrism with deep ecology. It also includes the ten-point "Left Biocentrism Primer."

#64 "My Path to Left Biocentrism: Part II - Actual Issues," by D. Orton, April 1998. This Bulletin shows the application of left biocentrism to actual issues: forests and forestry, aboriginal issues, relationship to the Left, green movement and party, protected areas and wildlife, and sustainable development. This Bulletin shows, in the context of the listed issues, what is distinctive about left biocentrism compared to deep ecology.

For more information about Left Biocentrism or anything in this bibliography, contact the Green Web: R.R.#3, Saltsprings, Nova Scotia, Canada, BOK 1PO
E-mail: greenweb@fox.nstn.ca
Home Page: <http://fox.nstn.ca/~greenweb/gw-hp.htm> ☺

Getting It Wrong Dept.—Book Review

Pillorying Preservationists, Idealizing Localism

Review by Philip G. Terrie

Reprinted by permission of The Adirondack Explorer. Catherine Henshaw's book about the politics of preservation in the Adirondacks is an addition to the arsenal of academic reaction to Wilderness advocacy—and exposes the terminal weaknesses of an Ivory Tower thesis.

In telling the story of how local people in the Adirondacks deal with the existence of the Adirondack Park Agency, how they feel about being surrounded by over two million acres of constitutionally protected Forest Preserve, and how many of them share the certainty that neither state bureaucrats nor downstate environmentalists give a fig for their welfare, Catherine Henshaw Knott makes a number of points I thoroughly agree with. She also purveys a lot of dangerous nonsense.

Living with the Adirondack Forest: Local Perspectives on Land Use Conflicts is based on a dissertation Knott finished in 1993 for a Ph.D. in anthropology at Cornell University; there's little evidence of additional research since the early '90s. Encumbered but not crippled by academic writing, the book dispenses with the usual professorial obligation to document its arguments.

In one of her repeated facile assaults on those whom she calls 'preservationists', for example, she makes the following grand pronouncement: "Many preservationists, such as [George] Davis, see humans as something apart from nature, too degrading or defiling to be considered a part of it." While a number of Adirondack developers, politicians, or real estate lawyers may have voiced sentiments similar to this and may have found them useful to their agenda, where I come from a scholar is expected to provide documentation for such claims (and a distinguished university press is expected to demand such from its authors). Aside from being a gratuitous, unjustified insult to George Davis (did she talk to him? inquire as to his putative misanthropy?), this outrageous claim typifies Knott's reliance on simplistic prejudice to advance her case.

One also wonders where Knott ever got the idea that Ralph Waldo Emerson climbed Mount Marcy. Or that private land constitutes 45 percent of the Adirondack Park (it's closer to 60 percent). Or that the town of Tupper Lake was founded in the "early 1800s" (the village was incorporated in 1902 and the larger town was founded in 1890). Or that the population of Saranac Lake is 10,000 (it's half that). Or the fantastic notion that "foreign pension trusts, mostly English and German, which operate under a different set of tax laws, are quietly buying up Adirondack forest land." On the latter, it might be pointed out that Adirondack lands are taxed under New York law, whether the owner lives in Newcomb or Ulan Bator. What in the world, one would like to ask the authorities at Cornell University Press, does that sentence mean?

Here's her basic theme, hammered home endlessly in chapter after chapter: the 'local voice' has been consistently ignored as policy decisions on the future of the Adirondacks have been handed down in Albany. Except for the case of the very recent past, she's quite correct here. Starting over a century ago, when the Forest Preserve and the Park were first established by the New York State Legislature and when the forever-wild provision of the state constitution was adopted, the views of the year-round residents of this region have been noticeably absent from legislative, statutory, and judicial efforts to determine what the state should do with the Adirondacks.

Simple Melodrama

But in Knott's retelling of recent history, the messy details of a complex reality are reduced to a simple, black-and-white melodrama. In Knott's world, environmentalists in the Adirondacks, anyway are superficial hypocrites; they're wealthy and hence indifferent to the struggles of working-class Adirondackers. The primary home of these callous environmentalists is the Adirondack Council, and the chief manifestation



Great Blue Heron in Connecticut River.
Photograph © Roger Irwin.

of the Council's pernicious grip on policy and policy-makers is the Report of the Commission on the Adirondacks in the Twenty-First Century.

This Commission, writes Knott, failed to talk sufficiently to locals and failed to consider carefully the impact of its recommendations on the local economy. I think she's mostly correct here, too: the Commission's report was not a step forward for either Adirondack politics or the elevation of local discourse. But, in a way that would be terribly misleading to those unfamiliar with recent history, she refers to it repeatedly as if it constitutes a current threat to local welfare. She discusses the recommendations in the present tense, suggesting routinely that they're just about to be voted on in the New York State Assembly.

Readers unfamiliar with the Adirondacks (an apt description, I suspect, of both Knott's dissertation committee and the reviewers for Cornell University Press) might conclude on the basis of this book that, for example, the Twenty-First Century Commission's proposal for a one-year moratorium on new housing starts is a potential reality. Knott never adequately admits that this moratorium (which would have applied only to shorelines and the least developed parts of the Park, a fact ignored by most critics), and most of the Commission's other controversial proposals, were dead on arrival at Governor Cuomo's desk nine years ago. The reason they were never seriously considered by either the Governor or the legislature was that local voices were raised so effectively against them, and this fact pretty much deflates Knott's entire thesis: in this crucial instance, the 'local voice' carried the day.

Knott's habit of lifting things out of context or setting up straw enemies reaches its slippery apex in her use of an obscure article by Paul Medeiros of Earth First!, a small, aggressive and sometimes outrageous environmental group. Medeiros did in fact suggest in a 1993 essay that the Adirondacks would be more appealing, to him anyway, if uninhabited by 'modern humanity'. But in Knott's conspiratorial understanding of matters Adirondack, this essay (now be honest, how many people out there have ever heard of it?) supplies the smoking-gun evidence that "preservationists wish to push the people out of the Park and create a vast wilderness populated only by the loon, the cougar, and the wolf." Such views are not shared by responsible environmentalists, including the Adirondack Council, and it's irresponsible of Knott to associate them.

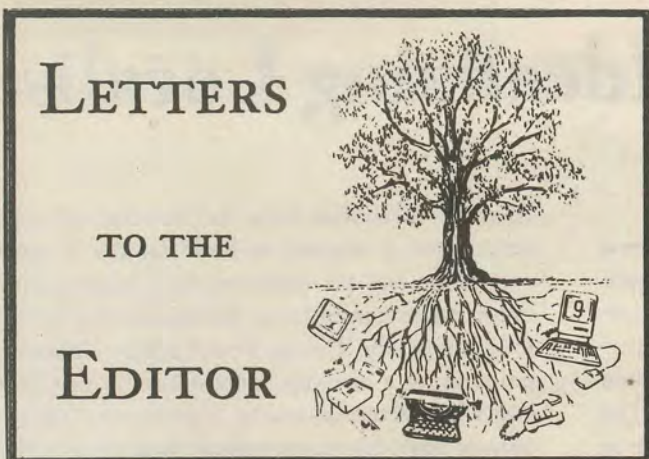
Indigenous Knowledge

While preservationists are misanthropic and ecologically ignorant, Knott's Adirondackers are all warm and wise. She interviews a handful of year-round residents loggers, 'crafters' (by which she means makers of furniture, guideboats, balsam wreaths and pillows), a trapper, a guide, maple syrup producers, and a berry gatherer and finds them to be what she calls "holders of indigenous knowledge."

Her argument is that such people, who spend real time in the forest, possess unique understandings of nature's ways and what's best for the Adirondacks—understandings that academic scientists and bureaucratic planners are unaware of or, worse, openly disdain. It's hard to argue with much of this: it seems reasonable to say that trappers and loggers, for example, have acquired deep levels of intimacy with the forest where they work, that they understand nature's rhythms and challenges even when they may lack the specialized vocabulary of science or policy. And it's not too much of a stretch to say, further, that such people ought to have some input when it comes to how the state of New York decides what its policy with respect to the future of the Adirondacks will be.

But Knott's picture of the very few people she offers as representative holders of indigenous knowledge is idealized. Knott's Adirondackers are all as wholesome as the Waltons: wise, kind, and deferential salt-of-the-earth archetypes. Setting out on her research already convinced that noble Adirondackers are getting shafted by elite, downstate environmentalists, who occasionally spin up from Westchester in their

continued on Page 31



Questioning Zero Cut Reserves

To the Forum:

I have been active on forest issues for many years, running for the Maine legislature on a no clearcutting platform in 1986, and working on the Ban Clearcutting campaign 1996. I read with interest the articles in the Mid-Winter 1999 NFF and agree with most of the material. The one question I have is not so much on the use of the name the Working Forest, but the idea that zero cutting is what is necessary on much of the Northern Forest. Having worked on a small woodlot for 15 years using techniques and technology that are even lighter on the land than what is meant by Mitch Lansky's term Low Impact Forestry, I would suggest that the type of cutting I did on my woodlot could be applied throughout the North Woods except in parks and designated preserves, and would be compatible with wildlife populations and tourism, as well as providing fiber. Given current cutting methods and the corporate depletion of the world's forests, it currently makes sense to keep the corporate rapists out of the woods. But I would suggest that there is a level of cutting that is compatible with ecological restoration, and that it might be a good idea to advocate for that rather than the elimination of all cutting over large tracts of land. Of course the devil is in the details, but my experience tells me that very low impact forestry is possible and practical, while still promoting ecological restoration.

Sincerely,
greg gerritt
Providence RI

Facilitators Respond to Biodiversity Critique

To the Forum:

We enjoyed reading Mitch Lansky's account of his participation in the Maine Forest Biodiversity Project in your Mid-Winter issue and found it informative and for the most part fair. At the same time we were puzzled by a couple of points he made regarding the process and facilitation.

Of course, as the two lead facilitators for the Project, we have an obvious bias on that aspect of MFBP. And having talked to Mitch more than once in the course of the 4+ year-project about his perceptions of the process, we didn't expect an unqualified and enthusiastic endorsement. In fact we agree with Mitch that there are risks and limits to consensus-oriented processes.

However, we also believe that there are risks and limits to exclusive use of public debate and advocacy on divisive issues. Debate and consensus building are both valuable tools in a democracy and both have limitations.

Debate places the pros and cons of various policy solutions in sharp contrast, and gives a strong voice to people with deeply held values, specific interests and strong fears. At its best, public debate educates the public and provides a foundation for informed public decisions. At its worst, public debate divides the public into roughly three groups: two groups that support one side and disparage the views and concerns of the other and a third (sometimes large) group that tunes out the repetitive and rancorous battle.

By contrast consensus-building initiatives focus attention on what the two sides can agree on; in many cases they offer opportunities for opponents to move beyond gridlock and stereotype-driven views of each other. This, in turn, provides advocates with a foundation for speaking to the public in less divisive ways and creates the possibility that the public will be offered fresh information and new proposals for their consideration. At its worst, consensus building affirms a lowest common denominator solution that reflects existing power imbalances. This can happen when continued advocacy for 'something more' is blocked.

These two approaches are not mutually exclusive and can in fact be pursued simultaneously, as was the case with the Maine Forest Biodiversity Project. As Mitch noted in his article, it was once proposed in an MFBP meeting that advocates set aside their advocacy campaigns during the consensus building process; the participant group readily rejected this idea, which had the advantage of keeping open multiple avenues of discourse. However, in commenting that "facilitators, unfortunately, allowed discussion of this inappropriate demand", Mitch reveals a conception of the role of facilitation that is problematic.

We are surprised that Mitch expected, or would want, facilitators to play the role of determining which participant demands are appropriate and which are not. This is

Editor Replies: I daresay most regular Forum writers would agree with what you say—that there is an approach to cutting compatible with many of the goals of ecological restoration. There is however in our view a place for Wilderness. In advocating for Wilderness, we are not arguing against ecological forestry. If the goal is economic empowerment in our region AND biodiversity protection, a re-building of forest inventory and the encouragement of sawtimber are not incompatible with setting aside land in a biologically viable network of roadless reserves. We advocate for both.

Stealth Web Smear Site Snookers Forum

Dear Editor:

Please note that you published an incorrect website address for The Wildlands Project in the Mid Winter 1999 edition of The Northern Forest Forum in the story titled "The Picture of an Entire Sub-Culture." The official website for TWP is <www.twp.org>. The incorrect website address you published, <www.wildlandsproject.org>, supplied by Matt Bennett, purports to be The Wildlands Project site but is an altered copy of the real thing.

The fact that opponents of conservation must rely on this type of blatant misrepresentation is indicative of the weakness of their arguments.

Sincerely,
Kim Vacariu
Communications Director
The Wildlands Project

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closer to the role of an arbitrator, who is empowered to make and impose judgments. From our perspective, the role of facilitators is purely confined to making recommendations around process (e.g., groundrules, agenda topics and timing) and enforcing those agreements where appropriate. Facilitators deliberately stay out of content in order to maintain neutrality, which is essential to their credibility. This also has the advantage of heightening participants' ownership of and investment in the work they do together.

Our other difference with Mitch's account concerns perceptions of what actually happened. Mitch writes:

"The rules were not always consistently followed. Some of the facilitators, for example, allowed industry members to demand an absurd form of 'politically correct' language, where no one was allowed to refer to 'problems' (or any word with a similar meaning). These restrictions on discourse were a form of stonewalling. Since we could not talk about problems, we obviously would be unable to demonstrate that they exist and therefore would not be allowed to recommend solutions."

Although we are aware that participants had different ways of describing the results of the assessment of Maine's biodiversity regarding the degree to which it indicated a 'problem', we were never aware of—and certainly would have discouraged—any facilitator-imposed restrictions on talking about the perception of 'problems' in the meetings. Over its duration the project involved perhaps a dozen different facilitators of small groups. Conceivably one of them could have made such a mistake. However, if so we imagine it would have been called to our attention before now; and even if there were isolated instances of this kind, it is surely misleading to single this out as a major feature of the facilitation.

Despite these differences with Mitch's view of MFBP, he provides a very useful account of a process that is unique in our experience as facilitators. We came away with enormous respect and appreciation for Mitch and the many other participants in the Project, who spent countless hours—and endured many frustrating moments—working across traditional 'interest group' lines.

Among the gratifying results were new relationships and avenues of communication within and across these lines, as well as the more concrete products Mitch describes.

Sincerely,
Grady McGonagill and Maggie Herzig

Comments on Last Issue & An Ode to the Clothesline

Dear Editor:

The Forum is full of things that people need to know, that we don't find in other major media. So the Forum is doing a badly needed service in informing people in what it seems to me are the basics of a republic. I liked [in the last issue] that 'working forest' is a euphemism for industrial forestry. In other words, exposing euphemisms for what they are.

David Korten's 'Money is Money; Wealth is Wealth' shows up capitalism, gives us arguments against it. I think it's been recognized for years now that it is killing the environment with its ethic of growth, growth, growth, growth as if there are no finite limits. But you don't hear this often enough.

The idea of local economics resonated. In our family, it's Vermont First and we try to use local people, products and services first and foremost.

The Alternative Fiber Pulp Mill project was exciting and encouraging as a way to make tree-free paper. I have long felt that industrial hemp could restore some farming in Vermont and introduce new industries related to making paper and cloth and other things from it.

'Laundry and Technology' made me smile. I'm an advocate of my 'solar dryer' meaning the clothesline or winter rack in a warm corner of the house. To my dismay, my daughter and her partner installed a dryer in the house. At least I don't use it, and have to admit I got a dryer as a working Mom. But that was years ago! I wrote a poem about it, and will impose on your patience by adding it here.

Thank you for the work you and the Forum staff and everyone else does for excellence in print that helps our desire to be stewards to the earth and feeds our spirits.

Sincerely,
Lea Wood
Underhill, VT

Biomass?! Ya call this Biomass?!
This is nothin' but a bunch of
☺☹☼☽ bugs and toadstools!!
What good is this ta ME?!



Solar Dryer

I love that rarity:
clothes strung along a line,
dancing in the wind,
blow-dried by the breath of the earth.

I love to hang new-washed clothes.
Sheets like sails flapping off my hands;
sweet smell of soap and water.
Then, sun-warmed and ironed by breezes,
to take them down,
folding in the fragrance.

Clotheslines tell stories about people.
In Vermont, lines stretch across porches,
keeping clotheslines from going extinct,
putting solar dryers up front.

Pillorying Preservationists continued from page 29

BMW's, spend an hour or so on the trail, and then retreat to their suburban comforts, Knott finds exactly what she expected to find. In creating her romanticized image of these indigenous knowledge holders, or 'woodspeople', she ends up patronizing Adirondackers who are as complex, hard to describe, and full of contradictions and inconsistencies as anyone else just as much as her downstate millionaires do.

Rich versus Poor

In dwelling on the thorny class issues, Knott has a point. The average Adirondacker doesn't have the resources enjoyed by plutocrats who may be pushing the cause of Adirondack environmentalism to alleviate family guilt over the rape of the world's resources by various ancestors or to protect their privileged enclaves from the rabble banging at the gates. But to cast the Adirondack drama in such stark, rich-vs.-poor terms is to grossly oversimplify the story. Pieter Litchfield, for example, owner of a vast family estate (including a castle) near Tupper Lake and scion of just the ruling class that Knott appears to abhor, is now the scourge of the Adirondack Council.

In developing her neat drama, Knott loads the dice. The locals come across as noble victims of class warfare. She allows them to have their say and never challenges any claim. John Stock, for example, makes a familiar assertion: "One thousand acres of managed forest provides year-round work for one person. One thousand acres of state land doesn't do anything. It

lies there and becomes basically the desert."

This sort of hyperbole would come as a surprise to the tens of thousands of hunters, anglers, photographers, hikers, climbers, skiers, and snowmobilers who flock annually to the Forest Preserve and who spend quite a bit of money while here. Her account of the Vaccaro case, which she raises more than once as evidence of the failure of environmentalists or the state to act in good faith or use common sense, further illustrates her eagerness to toe a certain line. To Knott, Dr. Vincent Vaccaro, who was involved in a lengthy eminent-domain dispute over a large parcel of lake-front property in Hamilton County, is yet another victim of elitist idiocy. In Knott's narrative, Vaccaro is an 'aggrieved landowner,' motivated only by "his love for his land and his fight to stop the state from taking it."

What she fails to note is that the previous owner had been negotiating with the NYS Department of Environmental Conservation concerning state purchase. With the parties unable to agree on a price, the state had begun eminent domain proceedings before Vaccaro bought it. The whole affair was opportunistically adopted by property-rights extremists to advance their indefensible argument that all Adirondack property was about to be usurped by the state. The state ended up negotiating precisely the conservation easement she suggests it refused to consider.

In creating her romanticized image . . . she ends up patronizing Adirondackers who are as complex, hard to describe, and full of contradictions and inconsistencies as anyone else .

The Vaccaro incident was in fact a public-relations disaster for the state, but it was far from being the simple parable that Knott makes it out to be. If she knew these details, her use of the story is dishonest; if she didn't know them, it's merely sloppy scholarship.

In any case, it's typical of the one-sided, selective reporting that fills this volume.

Much to Like

It's unpleasant to be so harsh on this book. There is much to like here. The author extends deserved sympathy to some good people who haven't been paid much attention, and she's right to suggest that the environmental position has, on occasion, been arrogant or incompetently presented.

She genuinely would like to see the shouting stop and steps taken toward compromise. She likes the outdoors and the Adirondacks and surely doesn't intend to serve the interests of those who would abolish the Park Agency and open up the backcountry to massive development. In her final chapter she acknowledges many of the ambiguities and complexities she otherwise downplays. Like many of us, she wants to figure out a way to get people to listen to each other instead of yelling past each other.

But would tapping into 'indigenous knowledge' when some developer wants to carve up a lakeshore or build a cluster of vacation homes too close to a wetland really help?

Philip G. Terrie, an Adirondack historian and author, is also professor of American Studies at Bowling Green University in Ohio. His review of Living with the

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Photo of Partridge drumming © Roger Irwin.

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