

The Northern Forest Forum
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The Northern Forest Forum

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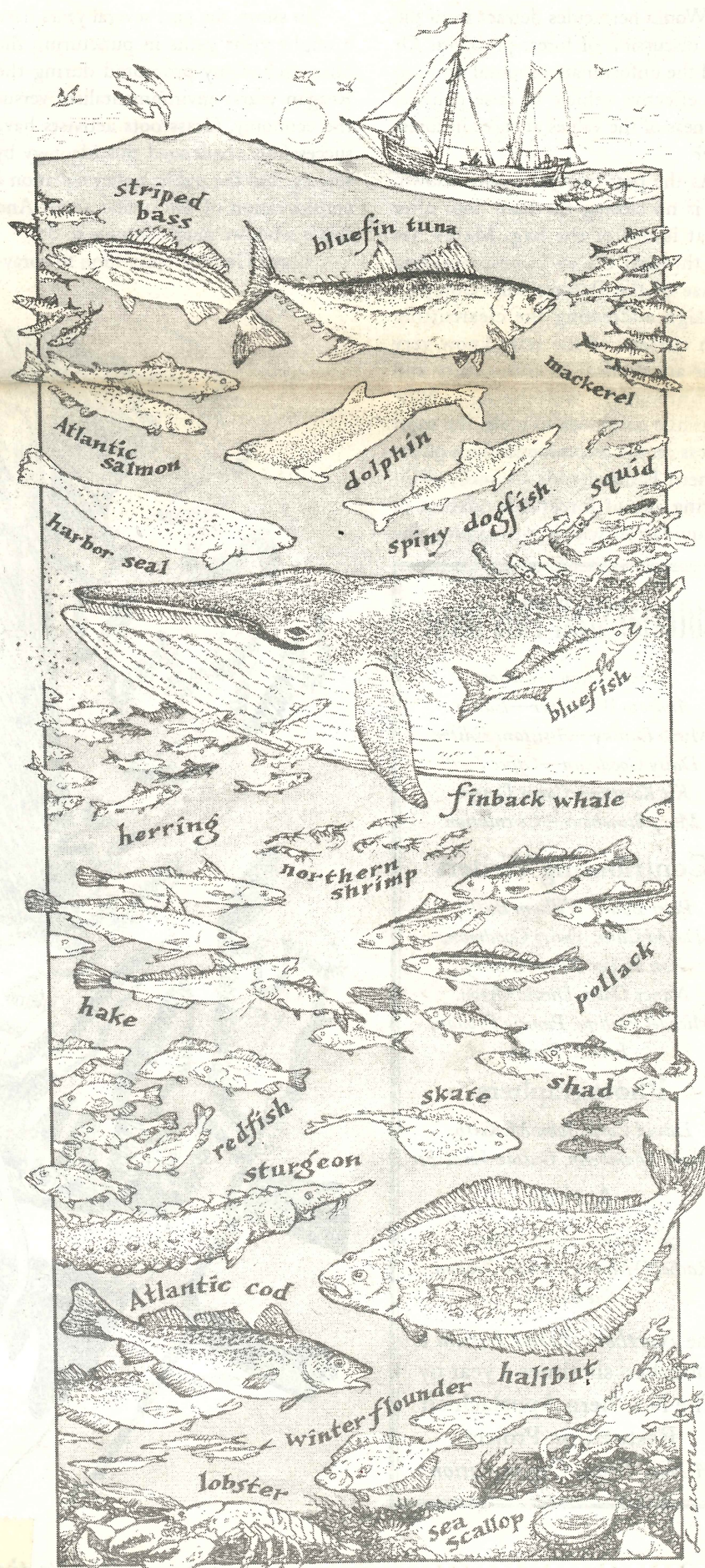
Volume 5 No. 3

Citizen Activists Persuade VT Forest Advisory Committee to Support Herbicide Moratorium

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The Way Forward versus Fin-de-Siècle Frittilarianism

When Lloyd Gierke of Brunswick, Vermont first appeared in my parents' yard two summers ago waving a letter from Boise Cascade, it felt like a defining moment. Boise Cascade was casually alerting Lloyd to the fact that it had permits in hand from the state of Vermont to proceed with a spray program on their abutting land. Lloyd had water rights on the Boise land. There was, in fact, a wetland on Boise's approved spray site—as later state inspection demonstrated.

Lloyd Gierke was simultaneously dismayed and resolved: the spraying would not occur. As time has proved, the people of the state of Vermont are with him on this one. As for my own feeling at the time, it seemed the herbicide issue could develop in several different ways. Two summers ago, many of us were flummoxed in our efforts to challenge the Vermont Forest Resource Advisory Council to effectively and adequately address rampant clearcutting in the Northeast Kingdom and associated, statewide issues of forest conservation. Would herbicides detract from the (non) discussion of forest practices? Or would the unfortunate proposal prove to be an effective vehicle to raise political awareness of the values at stake in forest policy?

As the past two years have shown, there is no closing the barn door after the cat is out of the bag. Maine has gone through the awareness-building exercise of the Referendum/Compact campaign addressing the clearcutting which citizens of the state know very well is antithetical to community and environmental well-being. New Hampshire continues to make the most progress on the recommendations of the Northern Forest Lands Council, albeit hovering shy of forceful regulation of the liquidation which is stripping the

hillsides of Coos County. Acid rain and other atmospheric threats to forest integrity are once more in the headlines—as are other industry threats to water quality from dioxin to sedimentation from logging.

Friends of the Northern Forest outside its borders are also increasingly alert to the issues surrounding conservation of the last great contiguous block of wildland in the Northeast. Proposals for wilderness reserves are gaining headway—a subject we will be revisiting next issue. Forest practices, it is increasingly recognized, are a reflection of the markets they serve. The public, which favors its forests the way Nature intended them, is supportive of forest practices that employ people rather than machines. Critics within industry know that we cannot have a quality forest that emphasizes commodity production. Local value-added economies require sawtimber; sawtimber requires a commitment to the harmonization of forest practices and forest ecology to ensure long-term forest productivity.

In short, the past several years have brought great gains in puncturing the false dichotomy promoted during the Reagan years: environmentalism versus the economy. Grassroots activists have successfully challenged this ideology by forcing into the public policy equation a consideration of the public good. And this is what we must continue to do.

Lloyd Gierke's opposition to spray-

ing no doubt has something to do with his water supply, but it is also emblematic of a spirit that motivates all who, on the one hand, despair at the sight of clearcut after clearcut, and on the other, work and hope for a better day. This spirit is a fighting spirit reflecting a love of the land and community. It bears no antagonism to industry except insofar as industry has abandoned all notions of public good. It bears no animosity toward government except insofar as government and organizations have rendered themselves and the notion of the public good subservient to private interest. It is a spirit that we must foster and carry into public discourse to achieve the hard work that lies ahead.

In Vermont, we must succeed in fighting off herbicides so that New Hampshire and Maine can do the same. Citizens in all three states must assert themselves and the public interest to assure the implementation of sustainable forest practices so that we may lay a foundation for stable, livable communities that young people leave only out of appetite for adventure—and not a sense of hopelessness. Proponents and advocates of wilderness must carry their message to the people, because it's the people who will hear and respond and make their institutions do likewise.

In the next few years, we should begin to think about our borders more creatively. The people of the Northwest and the Northern Forest face issues in

common that federal legislation can and should address—reform of the Forest Service and industry accountability for starters. Federal action must be taken to address the sleeper issue in forest and perhaps human health—air pollution. Federal monies going to states should be tied more closely to environmental criteria. Rather than investing Social Security funds in Wall Street, the Feds should be investing in our communities nationwide—the return is guaranteed.

So too should we recognize that by forging ahead with forest issues we cross borders and build common cause with others who work for sustainability in energy, agriculture, and marine ecosystems. Environmentalism gains no ground so long as it conceives of itself as a special interest. The grassroots has radicalized environmentalism at the same time that community and local connection have challenged environmentalism to articulate the public good.

Make no mistake: our spirit, our love of place, is in opposition to the ideology of the day which tells us that to have jobs, to have security, we must join the global economy, accept technological imperatives, and swallow the dictates of economic society. It's just a coincidence that all of this impoverishes communities and ecosystems; prosperity is just around the corner.

We ourselves may not live to see the better day—but let's work real hard just as if we might.

—Andrew Whittaker

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Dave Foreman To Speak In Burlington March 4, 7:30 PM

Dave Foreman, founder of The Wildlands Project and author of *Confessions of an EcoWarrior*, will speak at a benefit for Wild Earth Journal on March 4 at the Ira Allen Chapel on University Place, University of Vermont in Burlington at 7:30 PM.

Foreman, recognized internationally as one of the seminal thinkers in the history of the Wilderness Protection and Restoration movement, will offer "A Wilderness Vision for the Next 100 Years."

If you've never seen Dave speak, don't miss this opportunity.

Price is \$5 at the door; this includes raffle of Patagonia gear.

For more information: contact Monique Miller at Wild Earth, (802) 434-4077.

Wild Earth is the indispensable journal of Wildlands activists everywhere.

Victory on Loon Mountain - Federal Court Rules Against WMNF

by David Carle

Loon Pond and citizens of Lincoln, NH received a wonderful holiday gift from the United States Court of Appeals for the First Circuit. On December 19, the court ruled in favor of Roland Dubois and RESTORE: The North Woods in a lawsuit challenging the U.S. Forest Service's decision to allow Loon Mountain Ski Area to expand. The court ruled that the Forest Service was "arbitrary and capricious" in failing to review all legitimate alternatives put forth by the public, to allow public involvement, and to protect pristine Loon Pond from pollution and contamination. The case now goes back to Federal District Court for implementation.

In 1986, Loon Mountain Ski Area proposed a massive expansion on White Mountain National Forest (WMNF) land near Lincoln, New Hampshire. Initially, the Forest Service thought that only minimal environmental review would be needed. After an outcry from some environmental organizations and federal agencies, the Forest Service ended up publishing three different environmental reviews over a five-year period as each was found to fall far short of complying with federal law.

In 1990, the Forest Service brought in a new forest supervisor, Rick Cables, who rammed through a new revised draft Environmental Impact Statement (EIS). This document contained an entirely new alternative for expansion. This new alternative, Alternative 6, was developed by the Forest Service, Loon Mountain Corporation, and a few New England conservation organizations. The public was not allowed to participate in the development of this new scheme or to comment on it.

On March 1, 1993, The Forest Service approved Alternative 6, allowing the Loon Mountain Ski Area to expand. This proposal gave approval for Loon Mountain to construct over 28,500 square feet of buildings, drain more than one-third of the water in Loon Pond for snowmaking, and significantly widen most of the existing ski trails.

In response, RESTORE formed a coalition with four other groups—Lincoln Coalition of Concerned Citizens (LCCC), National Audubon Society (NAS), Preserve Appalachian Wilderness (PAW), and Pemigewasset River Council (PRC)—that filed an administrative appeal with the Forest Service. The 140-page appeal documented the failure of the agency to abide by numerous federal laws and regulations in approving the Loon Mountain expansion. The Sierra Club and Roland Dubois, a native of Lincoln, New Hampshire who presently lives in Maryland, each filed a separate appeal. All of the appeals were denied by the Forest Service.

The only remaining option for conservationists was to go to court. In early 1995, Roland Dubois and RESTORE filed suit in federal court challenging the Forest Service's handling of the Loon Mountain EIS process. The case was heard in the Federal District Court of New Hampshire and Judge Paul



This vertical clearcut will become another ski trail at Loon Mountain Ski area. Loon and their friends at the White Mountain National Forest had hoped to withdraw water from Loon Pond to manufacture fake snow. Photo © David Carle

Barbadoro ruled against both RESTORE and Dubois. They appealed to Federal Appeals Court.

The Federal Appeals Court for the First Circuit heard the appeal in early September. Attorney Cindy Hill of Middlebury, Vermont, a long-time conservation activist represented RESTORE. Roland Dubois, a lawyer for the EPA in his other life, represented himself. The three-judge panel asked a number of questions, most directed to the Forest Service and Loon Mountain lawyers. One judge wondered how the Forest Service could claim that the water in Loon Pond was the same as the water in the East Branch of the Pemigewasset River. The judge remembered when the East Branch was terribly polluted while Loon Pond has been a source of drinking water for the Town of Lincoln, New Hampshire. He observed that to claim that they are both the same water defies common sense.

The Federal Appeals Court decision was released on December 19, 1996. According to the Court, the Forest Service had violated federal laws and regulations in the handling of the proposed Loon Mountain expansion. The Court found that the Forest Service excluded the public from the process; that Alternative 6 was a completely new alternative and required appropriate environmental study; that draining Loon Pond and then filling it with river water was inappropriate; and that the Forest Service acted in an arbitrary and capricious manner in approving the Loon Mountain expansion.

This is a significant victory. The Loon Mountain case shows that we can protect our natural environment—if necessary, even from the very federal agencies that manage the land. It also shows that the Forest Service is out of touch with the public and willing to break the law if it interferes with the agency's all-consuming desire to exploit our national forests. This is an agency

that needs to be reformed. However, reform will not happen through the courts. It will only happen when the American people tell the Congress that strong action is needed to protect our national forests from Forest Service mismanagement.

Many people helped make this effort successful. People including Paul Beaudin, Will Bishop, and the other members of the LCCC; Pat Schlesinger and David Roberts of the PRC; Jeff Elliott of PAW, Scott Hogan and Grant Kidd of Hogan & Kidd, Attorneys At Law; Cindy Hill, Attorney At Law; and Roland Dubois deserve our thanks. It has been a

tremendous (and long) battle, but one that was worth fighting.

The court decision does not end the Loon Mountain expansion saga. The Forest Service may well revive the process by issuing a supplement to the EIS. We can only hope that if the project reappears, the Forest Service will follow its legal mandate and not attempt to bypass the public. In the meantime, celebrate this victory.

David Carle is Associate Executive Director of RESTORE: The North Woods. He can be contacted at: RESTORE, POB 1099, Concord, MA 01742. Tel. 508-287-0320.

Loon Mountain Ski Area Expansion Time Line

November 1986	Loon Mountain Ski Area proposes massive expansion
February 1988	Forest Service convenes Joint Review Committee
Spring 1988	Loon considers dropping expansion plan, AMC and SPNHF representatives convince Loon to continue expansion process
May 1988	First Public comment period
February 1989	Draft Environmental Impact Statement (DEIS) released
November 1989	Supplement (SDEIS) released
December 1989	Public meetings held
January 1991	Revised Draft EIS (RDEIS) released
February 1991	More public meetings
June 1992	Forest Service unveils Alternative 6
October 1992	Final EIS released
March 1993	Loon Mountain Ski Area expansion approved
May 1993	Appeals filed with Forest Service
December 1993	Appeals denied by Forest Service
March 1994	Forest Service issues Loon Mountain Ski Area a special use permit
June 1994	Dubois and RESTORE file lawsuit
April 1995	AMC, ASNH, SPNHF announce support for expansion
November 1995	District Court rules against Dubois and RESTORE
December 1995	Dubois and RESTORE appeals ruling to Federal Appeals Court
December 1996	Federal Appeals Court rules Forest Service violated federal laws

Adirondack Park Report

by PETER BAUER

Whitney Family Proposes Major Development for Little Tupper Lake

Little Tupper Lake is for sale. On January 9, Mary Lou Whitney announced plans to sell 39 standard piano-key lots as well as construct a hotel, surrounding Little Tupper Lake, the largest privately owned lake in the northeast. (See plan on page 5.) The entire 51,000-acre Whitney tract, of which the proposed Little Tupper Lake development is 15,000 acres, has long been the top priority for acquisition by New York State. Governor George Pataki quickly dispatched his counsel and problem solver, Mike Finnegan, to begin negotiations with the Whitneys for state purchase.

The Whitney's selected a fortuitous time to announce their plans. Last November, the voters of New York State approved a \$1.75 billion environmental bond act, which included \$150 million for land acquisition. Additionally, the 1997 New York Environmental Protection Fund has \$30 million budgeted for land acquisition. The Whitney's have stated they will sell to whoever is willing to pay their price. Their price is \$30 million for Little Tupper Lake.

The Whitney-Vanderbilt family has owned this property for more than one hundred years. Originally they owned over 100,000 acres, but sold 50,000 acres to International Paper Company earlier this century. Whitney Park contains 10 major lakes and 30 smaller lakes and ponds and includes headwaters of the Beaver, Bog and Raquette rivers. Whitney Park forms the eastern section of what the 1990 Commission on the Adirondacks in the Twenty-First Century recommended as the 408,000-acre Oswegatchie Wilderness, which has the same boundaries as Bob Marshall Wilderness advocated by the Adirondack Council since the late 1980s.

The entire Whitney tract is zoned Resource Management by the Adirondack Park Agency Land Use and Development Plan, which allows no more than one principal development for every 42.7 acres. On the 15,000 acres surrounding Little Tupper Lake, a maximum of 217 buildings could be allowed under APA zoning.

Whitney Park is also the missing link for several historic Adirondack canoe routes. Famous paddlers of the Adirondacks, such as W. H. H. Murray and George Washington Sears, describe canoe treks starting at the southern end of Whitney Park on Forked Lake and advancing northwards through six smaller lakes and ponds, some with interconnecting navigable streams, others with portages, to Little Tupper Lake. From Little Tupper these canoeists made their way to Round Pond, now owned by IP, and onto the Bog River and Tupper Lake. From there they could paddle to Canton or Saranac Lake. Canoe routes also passed through the property traveling east-west. These began at Long Lake, paddling up Big Brook to Slim Pond to Little Tupper. Today many are interested in the Whitney tract to tie together canoe routes that would connect Lake Lila, via the Shingle Shanty River, Salmon Lake and Forked Lake, to the Raquette River route.

In addition to the great recreational potential of

the property, it's also an important site for biological diversity. Little Tupper Lake is a shallow lake, 25 feet at its deepest points, and contains a native strain of Little Tupper brook trout. The entire Whitney tract includes vast wetland areas and bogs. The property has been managed for timber production, most recently by Wagner Woodlands, and a network of some 80 miles of roads exists, including many stretches of sturdy gravel roads. Over the past ten years the property has been cut very hard and also experienced significant blowdown in July 1995.

Several years ago Cornelius "Sonny" Vanderbilt Whitney died. His wife, Mary Lou, inherited his \$100 million fortune and Whitney Park. Mary Lou, a fixture at the Saratoga horse races and social scene, attempted to negotiate with New York back in 1993 to sell the property. At that time the state had no funds for land acquisition and several deadlines issued by Mary Lou were missed. Since then, Mary Lou has formed a liaison with John Hendrickson, a developer from Alaska, who is managing her development proposal. Two weeks after the development announcement, Mary Lou was quoted in the press as saying her phone was ringing off the hook with inquiries about lots on Little Tupper Lake.

The Whitneys subdivided the property in the early 1990s, a few family lots, and at that time the Adirondack Park Agency (APA) stated that the Whitneys would be required to file a master plan detailing their ultimate plans for the property before any more subdivisions would be approved. Last summer, the APA granted the Whitneys a 3-lot subdivision on Little Tupper; the Whitneys sold buildings that had long been there. During review of this project the APA, under the leadership of Chairman Greg Campbell, who supported abolishing the APA prior to being appointed as Chairman by Governor Pataki, disregarded the master plan requirement and granted the Whitneys the additional permit. This decision drew heavy criticism.

When the Whitneys announced their new development plans, Chairman Campbell told *The New York Times* that the new development plan looked to him like a master plan, though it is only for one-third of the property and includes a skeleton of the necessary information. The Whitneys are betting, and they're probably right, that the APA under Greg Campbell will not stringently review this project.

Governor Pataki has done a lot in the past year to resuscitate his environmental credentials. He led the joint efforts between New York, New Jersey and the federal government to buy the 18,000-acre Sterling Forest in Rockland County. He brokered an agreement between New York City and the Catskill watershed communities to put in place a comprehensive program to protect the water quality of a network of reservoirs used for New York City's drinking water. He brokered a deal to protect the Long Island Pine Barrens and has organized the first significant effort to clean up Onondaga Lake, near Syracuse, the most polluted lake in the eastern U.S. Governor Pataki also presided over the doubling of the Environmental Protection Fund, now \$100 million annually, and passed the Clean

Water, Clean Air Bond Act last November.

During this same time Governor Pataki has decimated enforcement and environmental crimes investigation at the Department of Environmental Conservation and eviscerated the APA. Any positives that Pataki receives for his environmental record in 1998, when he runs for reelection, could be seriously tarnished if he allows Little Tupper Lake to be developed.

Over 42,000 acres of the Whitneys' 51,000 acres are enrolled in a New York preferential forest tax law program (480), called the Fisher Act. This grants forest land owners a subsidy by as much as two-thirds to three-quarters off school and property taxes. As part of the program landowners are required to pay a stumpage fee to local communities on wood cut from the property (in 1996 Whitney Industries paid \$2,100 in stumpage fees). There is no reimbursement to local communities for these programs.

Currently, all of the Whitneys' Little Tupper Lake holding, with the exception of their headquarters compound there, is enrolled in the Fisher program. In 1996, the Whitneys paid \$292,673 in school, town, and county taxes on their entire 51,000 acres, which includes some 20 buildings. New York State pays generously on local taxes on its Forest Preserve lands. In 1995, New York paid over \$43 million across the Adirondacks in Forest Preserve and other taxes. Generally Forest Preserve land yields between \$8 and \$12 per acre in taxes annually.

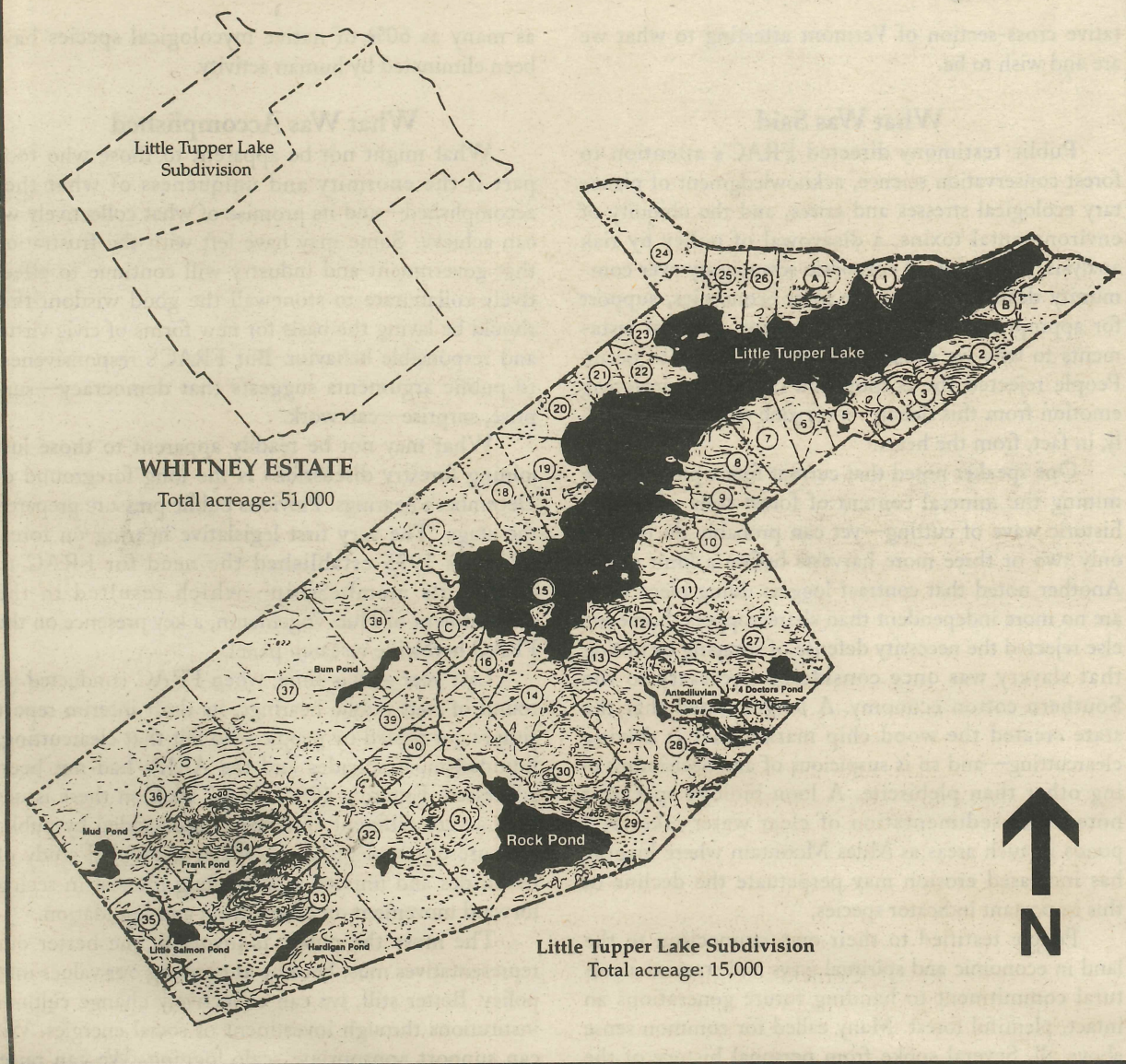
If Little Tupper were to be purchased by the state, this property would produce between \$120,000 and \$180,000 in local taxes paid by the state. Under the Fisher Act, the Little Tupper Lake parcel produces about \$63,000 in local tax revenues. If the state were to purchase the Little Tupper Lake parcel, local tax revenues for these lands would triple. And no services would be required from the local community and more people would be interested in coming to the Long Lake area. Open space protection in the Adirondacks benefits local communities.

The dissolution of Whitney Park is one of the worst things that could happen in the Adirondacks. With Whitney intact the possibility of assembling a new wilderness area or of bringing into public ownership a tract of land that would be a fantastic canoe tripping area are alive. Development kills these dreams. There is much discussion about whether or not the Whitneys are using this development proposal as a pretext for inflating the value of the property. Five years ago an independent appraisal valued the entire 51,000 acres at \$25 million; roughly \$500 per acre. Today, the Whitneys claim the property is valued at \$2,000 per acre, making Little Tupper worth \$30 million. By pushing ahead with development plans, the Whitneys intend to find out just what the property is worth. This question and what its worth to the people of New York will be answered in the coming months.

Peter Bauer is Executive Director of the Residents' Committee to Protect the Adirondacks. He can be reached at: POB 27, Main St., North Creek, NY 12853; tel. 518-251-4257.



WHITNEY ESTATE DEVELOPMENT PLAN—1997



New Study: Investment in Public Lands Benefits Local Economies

Editor's Note: The following announcement from the National Wildlife Federation (NWF) of its report on how public lands benefit local economies is exceptionally timely, in light of the news that the Whitney family wants to develop 15,000 acres of critical wildlands in the Adirondacks. Fortunately, as Peter Bauer reports on page 4, the State of New York is prepared to deal with this emergency because in November its voters passed a \$1.75 billion environmental bond act which included \$150 million for land acquisition. Unfortunately, the states of Maine, New Hampshire and Vermont have no similar emergency acquisition funds in place to deal with the next big land sale. This important NWF report proposes a strategy for establishing a funding program for public land acquisition that can deal with emergencies such as the proposed Whitney development in a timely manner. The Forum will run an extended excerpt from the NWF report in our next issue.

In December the National Wildlife Federation released the results of a year-long study it produced with Ad Hoc Associates of Salisbury, VT, that demonstrates how investments in public land could lead to healthier economies in the four-state Northern Forest region. The study, *Investing in Public Lands: A Necessary Foundation for the Northern Forest*, found that changing economic trends already underway in the northeast will increase the need for public investment in land protection in order to support future job growth in rural areas, protect key environmental resources such as habitat for black bear and lynx, and enhance recreational access for tourism.

The study notes that job declines in the manufacturing sector, especially in the timber industry, are already well underway in this region due to increased mechanization, offshore competition, industry restructuring and other factors. The study emphasizes that while loss of manufacturing jobs is a concern, regional policymakers should also be thinking ahead about the likely sources of new jobs and the necessary conditions to providing such jobs in this region.

"We need investment in land conservation in the same way that we need investment for other infrastructure needs such as schools, roads, or housing," says NWF Resource Economist Eric Palola.

Among the study's other major findings:

- The northeast region has the lowest amount of public forest land acreage per capita in the country. Another eight million acres of land would have to go into public ownership just to bring the amount of public forest acreage per capita up to the national average.

- Over three-quarters of the hundreds of citizens who spoke at the Northern Forest Lands Council listening sessions in 1994 supported stronger land conservation measures in the region, including public land acquisition and protection.

- Studies have shown that in areas with high environmental quality the service-producing sector of the economy is growing independent of the goods-producing (manufacturing) sector. Nationally, the U.S. Department of Labor predicts that under a moderate growth scenario roughly 18 million jobs will be produced by 2005 with most of them in the service and retail trade sectors. For example, in Maine where this trend is already underway, the service producing sector went from 56% of total employment in 1970 to 75% in 1990.

- Several local examples of economic benefits (and public savings) from public land protection already exist in the northeast such as: the increase in land values from improved water quality in Maine lakes, the avoided cost of expensive municipal water treatment facilities from federal forest land protection in New Hampshire, and lower property tax bills in Vermont and New Hampshire towns with higher levels of protected lands.

- A consistent public financing mechanism is necessary to assist public land investment across the Northern Forest region. In the absence of restored federal funding such as through the existing federal Land and Water Conservation Fund, NWF recommends that a regional investment board be created to pool various sources of public and private funding. The proposed regional investment board resembles the successful Vermont Housing and Conservation Trust Fund which has operated since 1987.

*The get a copy of *Investing in Public Lands*, contact: National Wildlife Federation, 58 State St., Montpelier, VT 05602; tel. 802-29-0650.*

The Forgotten Nature of New England

by Dean B. Bennett. Down East Books, 1996, 369 pp., \$17.95p

Twenty years ago I set out to rediscover some of the natural curiosities of the Maine landscape, such as overgrown gorges, rare stands of old-growth trees, and other accidental islands of wildness which were described in the early exploration literature. My quest was interrupted by the exigencies of work and a young family. Little remains save a file drawer of yellowed notes and some exciting memories.

Happily Dean Bennett has undertaken his own survey of relict islands of wildness across New England. Even better he has published the results of his years of adventuring to, as the subtitle of his book says, "search for traces of the original wilderness." While the author is an academic, his book is no abstruse tome. It is, rather, an inspiring collection of first person accounts in which he patiently seeks out examples of our natural history that connect to time before European settlement. The trip is heroic, reverent and transcendental. As he writes near the end of the book, "By the time I had completed my journeys, I had felt the touch of more than a hundred remnants of an earlier time. From them I not only gained a sense of connectedness with the rest of nature, I experienced a deep sense of moral responsibility for safeguarding what is left of our original landscape."

There are some minor errors of human history, several obvious references seem to be lacking, and the book is sprinkled with annoying mistakes the copy editor should have picked up. However, the extensive footnotes will be a gold mine for the growing number of students of Wilderness East.

It is fashionable lately to deride wilderness as merely an outdated human construct. Dean Bennett reminds us wilderness is about real places. Think of this book as a seed catalog. With enough TLC we can germinate these seeds of wildness and begin to restore some balance to the landscapes in which we live, both those out there and those in here.

—Jym St. Pierre

Recreation Fees & Below Cost Trees, Part II

by David Carle

The U.S. Forest Service has announced that it will be implementing a user fee program for the White Mountain National Forest (WMNF) starting in May 1997 as part of a 3-year pilot program taking place on 100 National Forests. As presently designed, moneys collected from user fees can be used for anything from maintaining recreation facilities to subsidizing commercial logging.

According to the Forest Service, the WMNF recreation budget is declining. The result is that recreation facilities and services are deteriorating or restricted, yet between 1994-1996 the budget for the below-cost WMNF logging program doubled.

The General Accounting Office of the U.S. Congress has reported that the WMNF lost over \$1 million a year between 1992-1994. Recent WMNF documents show that they expect the \$1 million subsidy to the timber industry to continue into the foreseeable future. Under the WMNF proposal, money generated from the user fee program can be used to pay for the below cost timber program. The Forest Service will be picking the pockets of recreationists to subsidize the timber industry.

The implementation of user fees on the WMNF is taking place without any public input or debate. According to the Forest Service announcement, "the question at present is not whether we should participate in the pilot [user fee] program, but HOW we should participate."

The Forest Service will be holding a workshop on February 22, 1997 at the Kennett High School gymnasium in Conway, NH from 10 AM to 2 PM to develop specific details to implement a fee pilot program in May 1997.

Citizens Persuade VT Forest Policy Committee to Vote Herbicide Moratorium

by Andrew Whittaker

On December 10, the Vermont Citizens' Forest Roundtable was offered the opportunity to represent public opposition to forestry-by-herbicides in summary testimony to our Forest Resource Advisory Council. FRAC had just issued a committee report on spraying; four of six members—including three public servants—had opted to support spraying. On the afternoon of the 10th, FRAC heard from Champion International, the lead proponent of spraying, and three Roundtable representatives.

That evening, FRAC also heard three hours of testimony from the public itself in a listening session on the Council's work to date. Of the 40 and more who spoke, 35 opposed spraying. Two nights later, the hearings reprised in Montpelier. There, over fifty spoke in opposition to spraying.

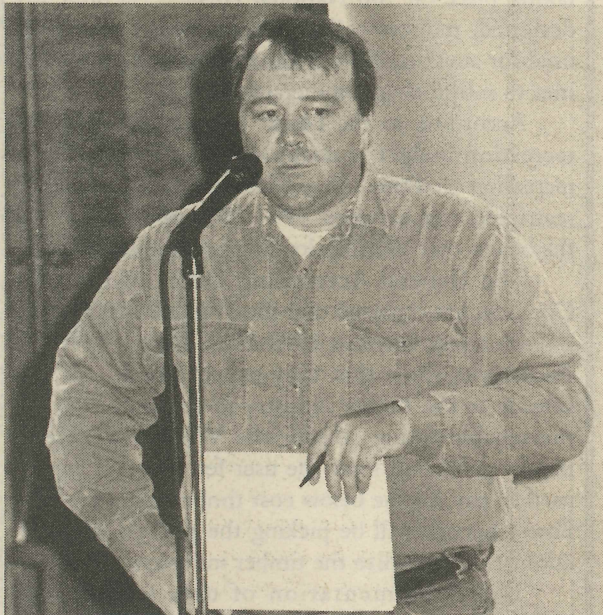
The following week, FRAC met to discuss its recommendations to the legislature. Virtually all FRAC members attested to the potency of the public's comments. Reversing an earlier hearing panel's 4-2 recommendation of spraying with increased review, FRAC voted 13-1 to recommend that the Vermont legislature establish a moratorium on aerial spraying. In their statements, FRAC members Frederick Pratt and Jason Fayen reiterated concerns expressed by the public about water and a cheap fiber mentality. Overall, FRAC took into account just about every argument mounted against spraying.

VT Citizens' Forest Roundtable

A year and a half ago, a small group of us who were frustrated by the lack of response on the part of forest policymakers—FRAC—to clearcutting, proposed aerial spraying, and wider context issues such as biodiversity and sustainable forestry, felt compelled to organize a platform and conduit for public and ecological concern.

Our objective has been to capitalize on all the good will and good sense that are out there. The goal has been the implementation of forest policy that expresses our cultural environment's core values: a healthy local economy that is supported by sustainable forestry practices and a sustainable forest.

Therefore, we all took great satisfaction in the hearings of December 10th and 12th. All three drew attentive crowds, and the evening speakers collectively articulated for attentive FRAC members a sense of community wisdom and toughness and commitment. For those who knew a bit of the histories and personalities of many attending, listening and speaking, there was an added wealth in the room—this was a represen-



Champion International stated at its December 10 appearance before FRAC that it saw "no point" in public hearings on herbicide use in forestry. Such undemocratic feeling arises from the awareness that the public includes articulate spokespeople for the common good. Here Sherry Belknap, selectman of Bloomfield, VT, addresses FRAC on the critical importance of protecting water quality in the Nulhegan Basin where Champion would like to spray herbicides to promote softwoods. Photo © Gustav W. Verderber.

tative cross-section of Vermont attesting to what we are and wish to be.

What Was Said

Public testimony directed FRAC's attention to forest conservation science, acknowledgment of planetary ecological stresses and crises, and the ubiquity of environmental toxins, a disavowal of policy by risk analysis, a rejection of corporate sovereignty over community desires, support for local economies, support for appropriate silviculture, and many personal testaments to why we should not allow spraying to occur. People rejected the corporation cry for sequestering emotion from this debate—everyone spoke emotionally, in fact, from the heart.

One speaker noted that current forest practices are mining the mineral content of forest soils with each historic wave of cutting—yet can probably do this for only two or three more harvests before a limit is hit. Another noted that contract loggers doing piece work are no more independent than sharecroppers. Someone else rejected the necessity defense of spraying by noting that slavery was once considered necessary to the Southern cotton economy. A logger noted that the state created the wood chip market that is driving clearcutting—and so is suspicious of any decisionmaking other than plebiscite. A loon biology specialist noted that sedimentation of clear water lakes and ponds in such areas as Miles Mountain where logging has increased erosion may perpetuate the decline of this important indicator species.

People testified to their own connection to the land in economic and spiritual ways and stressed a cultural commitment to handing future generations an intact, plentiful forest. Many called for common sense above all. Several spoke from personal history of the suffering and agony imposed on friends and family by cancer, noting the ubiquity and complicity of manmade environmental toxins and flatly rejecting industry claims of safe product and safe delivery. A Viet Nam veteran from Enosburg who has been active in veterans' struggles over Agent Orange angrily denounced chemical companies and warned Vermonters "don't let these bastards into your state—if anything goes wrong, you won't get a nickel."

Not all the right questions have been asked, said one person, who noted that the symmetry in this debate has been between a selfless citizenry motivated by concern for the environment—and an organization motivated by profit. He also observed that while we have admitted environmental crises around the globe, reductionist science has exonerated chemical after chemical, while the problems multiply. Another pointed to the essential absurdity of cost/benefit analysis where all the costs are borne by society and the benefits accrue to industry.

Many debunked the notion that spraying does not create a monoculture—an argument FRAC's panel had acceded to—and spoke in favor of forest practices based on ecological understanding. Several who have been West said Vermonters should not allow Montana, Washington and Oregon-style forest practices to take place here. A mycologist said that in the case of spraying, ignoring impact on small things in the forests like mycelium, is like ignoring small men like Hitler or small companies like McDonalds: in Europe, he said,

as many as 60% of native mycological species have been eliminated by human activity.

What Was Accomplished

What might not be apparent to those who took part is the enormity and uniqueness of what they accomplished—and its promise of what collectively we can achieve. Some may have left with the frustration that government and industry will continue to effectively collaborate to stonewall the good wisdom that should be laying the basis for new forms of civic virtue and responsible behavior. But FRAC's responsiveness to public arguments suggests that democracy—surprise, surprise—can work.

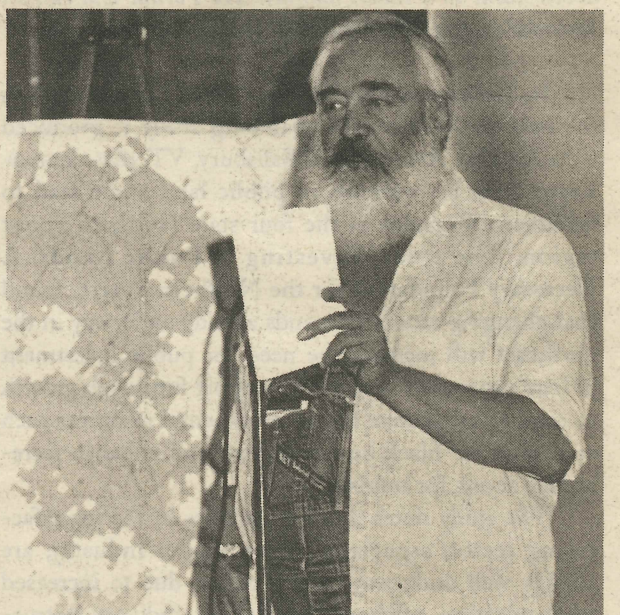
What may not be readily apparent to those just joining forestry discussions is the long foreground of December's hearings. Previous public pressure prepared the stage. The very first legislative hearing on forest issues in 1995 established the need for FRAC to expand its membership—which resulted in the appointment of Hub Vogelmann, a key presence on the FRAC herbicide research panel.

Last year at this time, when FRAC conducted its round of four public hearings, its draft interim report simply got pasted by people who felt that clearcutting, liquidation, herbicides and the AMPs had not been addressed. Entering 1996, FRAC took on these issues with a very different approach—again aided by public pressure on the legislature, which mandated study of herbicides and implied a compelling interest in seeing forward movement on clearcutting and liquidation.

The more the public is involved, the better our representatives must become at carrying our values into policy. Better still, we can collectively change cultural institutions through investment of social energies. We can support appropriate scale logging. We can raise understanding of forest ecology. We can buy land together. We can carry out a vision of what we want our rural communities to be.

At the close of St. J's hearing, it was gratifying to see not a crowd rushing out the door to get home, despite the long drives and icy roads—but people engaged in conversation—FRAC members, wood cutters, everybody. As I moved chairs and tables, I nodded in the direction of one such conversing couple and said to a bystander, "I like to see mycologists talking with bankers."

Unfortunately, I was misunderstood by this bystander, who was apparently married to the banker (my usual luck in such asides). He thought I was observing some asymmetry in the conversation. So I clarified: when bankers understand mycology, and mycologists understand banking, we will have achieved a significant hurdle on the road to sustainable forests



Lloyd Gierke of Brunswick, VT has spent his working career cutting wood on Champion lands from "Parmachenee to South America" [ponds]. Vermonters owe a debt of gratitude to Lloyd, whose opposition to Boise Cascade's plan to spray 180 acres in Brunswick blossomed into a populist campaign. The Vermont legislature is now deliberating whether to ban or establish a moratorium on aerial spraying. Lloyd believes Vermonters want no herbicides in clearcuts whatsoever. Photo © Gustav W. Verderber.

Vermont Herbicide Legislation Update

As we went to press, the Vermont Senate Natural Resources Subcommittee voted 4-2 to in favor of SB 28, a bill that institutes a moratorium on ground and aerial spraying of herbicides as a forestry management tool. SB 28 now moves to the full Senate. Over 2,000 Vermonters signed a petition to ban use of herbicides in forestry management. Please write your legislators and encourage a state policy that protects Vermont forest ecosystems, wildlife, and fresh waters. Address your letters to: The Honorable _____, State House, Montpelier, VT 05602.

MEAD the "Environmentally Friendly" Corporation Will Continue Boise Cascade Herbicide Management Program

by Daisy Goodman

"Air, land and water are precious resources. They must be used wisely so they will be available in abundance and suitable for all users, today and in the future. As a forest products company—reliant on these resources for our very livelihood—we recognize our stewardship role." — Mead Corporation Promotional Literature

On November 1, 1996, the Mead Corporation became the proud owner of Boise Cascade's northeast holdings (Me, NH and VT). In addition to hundreds of thousands of acres of clearcut and adolescent forest, as well as the notorious Rumford (ME) Mill, Mead has inherited Boise Cascade's regional management team and workforce. Not surprisingly, the "new" Mead management has announced that it will continue to use aerial application of herbicides as a brush control method.

Mead has, of course, also inherited growing regional opposition to aerial spraying, and begins its relationship with us in front of the NH Supreme Court. The Court is currently deliberating on an appeal by the Herbicide Project which seeks to clarify the procedure appropriate for an administrative hearing such as the hearing held last August 22 on our appeal of the aerial spray permit granted to Boise.

Mead also inherits a five year moratorium on aerial spraying in Vermont, which may turn into an outright ban during this legislative season. Mead owns relatively few acres in Vermont. Although Mead's Vice President for Human and Environmental Protection, Russ Kross, told me that he was unaware of the situation in Vermont and New Hampshire, he was "watching the situation in Maine very closely", where he had been told a referendum on aerial spraying was imminent.

Mead has lost no time submitting an application for permit to spray herbicides by helicopter over 777 acres in Coos County this coming summer. In the cover letter which accompanied Mead's application, Ernest Von Tobel (former Boise Cascade silvicultural administrator) noted that the early submission would ensure that an appeal of the permit could be dealt with in a timely fashion, without delaying Mead's proposed spray schedule. The early submission was also undoubtedly an attempt to avoid compliance with rule changes governing aerial spraying which are scheduled for approval in February, 1997. Because the application was submitted before the new rules took effect, it will be considered under the old system.

Proposed rule changes include input from the Herbicide Project, the Coalition for Alternatives to Herbicides, and the Northern Forest Alliance, groups opposed to the use of herbicide in forestry and utility rights of way. In addition to strict and thorough notification requirements, the revisions include a public hearing requirement for all aerial spraying, and significantly expand the definition of who has standing to appeal an aerial spray permit. Under the new rules, anyone who uses a



proposed spray area for recreation, camping, hunting, fishing, or gathering traditional foods or medicines, is potentially adversely affected by spraying and has a right to appeal. If these revisions survive the public hearing and review process and are approved, they will significantly increase the public's ability to effectively oppose aerial or right-of-way herbicide use. To my knowledge, New

Hampshire will also be the first state to include issues of specific concern to the Native American community—namely the destructive effect of industrial forestry on biodiversity, the availability of rare and endangered medicinal plants, and the safety and availability of other wild foods including game.

Mead proposes to spray 698 acres in the town of Dummer and 79 in the

unincorporated township of Dix's Grant, New Hampshire. Dummer is close to Berlin, the most heavily populated area in Coos County, and the areas targeted for 1997 are heavily used by the local community for fishing, hunting, bird watching, berrying and other activities throughout the spring, summer, and fall. This is part of the headwaters system of the Androscoggin River, characteristically a wet area. Despite this, and despite its alleged stewardship of "the abundance and suitability of air, land and water for all users", Mead has added a fourth herbicide to the chemical cocktail used by Boise. The mix now includes a lethal and unpredictable combination of herbicides, surfactants, undisclosed inert ingredients, contaminants, and metabolites, each with the potential to develop chemical reactivity with other ingredients. The possibilities are endless—and for the survival of anything resembling a forest ecosystem—hair-raising.

One has to wonder why, if herbicides are such a proven and effective means of brush control, industry is continually raising the ante in its war on early successional plants. Any one of the herbicides in this year's "prescription" should be sufficient to cause close to 100% mortality for deciduous species in the sprayed areas, and serious damage to a significant area surrounding the target zones as well. Why use a mixture if any one would be sufficient?

GARLON 4, whose active ingredient is **triclopyr**, is the latest addition to the war on brush in northern New Hampshire. GARLON 4 is probably the most acutely toxic to non-target organisms of the herbicides proposed for use. Triclopyr is a close chemical relative of the controversial herbicide 2,4,5-T. Like 2,4,5-T, it operates by imitating the plant growth hormone auxin, killing the plant by causing disorganized growth.¹ Triclopyr is highly persistent, and has been detected in soils up to two years post spray. It leaches from soil easily, especially in wet areas.

GARLON 4 is toxic to fish, even the manufacturer's Material Safety Data Sheet admits this. The LC50 (dose level that kills 50% of the test population) of its active ingredient, triclopyr was 1.4 parts per million for salmon. As with most products registered with EPA, testing has been limited to the active ingredient, rather than the full formulation. Inert ingredients of Garlon 4 include kerosene and EDTA, an active ingredient in some pesticide products which causes genetic damage and abnormal development in mammals.²

On the positive side, the tide appears to be slowly turning against aerial spraying in New Hampshire. On the political level, the legislature is starting to pay attention to pesticide issues again, including consideration of a bill to repeal the pre-emption of local control over pesticide use by the state. As it stands now, local communities must rely on state agencies to protect our health and the environment against abuse of pesticides. All aerial spray permits are

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What Are They Really Spraying Out There Anyway?

So-called "Inert ingredients" have recently become a topic of litigation against EPA, thanks to the work of the Northwest Coalition for Alternatives (NCAP) to Pesticides. The identity of these chemicals, until now listed on pesticide product labels only as "Inerts" have been protected by EPA as trade secrets of the manufacturer. Unfortunately, these chemicals are not guaranteed to be either biologically, toxicologically or chemically inert. In fact, in many cases, they are far more toxic than the active ingredient listed on the label, and can include numerous terratogenic and mutagenic compounds. In fact, a loophole in RECRA, the nation's hazardous waste law, allows pesticide manufacturers to include hazardous waste in pesticide products as "inert" ingredients. Hard to believe? It's a lot cheaper than having to find a disposal facility.

The recent NCAP lawsuit forces EPA to disclose inert ingredients in six pesticide products and establishes a crucial precedent upholding the public's right to know. However, even a list of ingredients can be misleading, as a recent lawsuit against the DuPont corporation's BENLATE fungicide revealed. Numerous farmers using BENLATE on crops experienced inexplicable crop mortality after application of the fungicide. Chemical analysis of several batches of the product revealed several different chemical compositions! During the litigation that followed, deposition of DuPont employees revealed the following: the plant in which the BENLATE was manufactured also made other pesticides, using the same equipment. These products include sulfonyleurea herbicides, which are extremely potent at extremely low concentrations. The equipment was routinely cleaned using a starch/sugar solution. One of the unlisted inert ingredients in the BENLATE fungicide turns out to be sugar—misleading, because the sugar used to clean the equipment was then recycled as an inert ingredient in the fungicide. Unfortunately for the farmers who used BENLATE on their crops, the product was laced with an herbicide doubly disguised as an inert ingredient.

Toxic Artificial Cranberry Bogs Proposed for Washington County, ME

by Nancy Oden

Cherryfield Foods, a Canadian corporation, wants to tear up 1,400 acres of wetlands, uplands, and woods to build artificial cranberry bogs in Washington County in eastern Maine. Governor Angus King is pulling out all the stops to make sure they get their way.

While King and Cherryfield chant "jobs, jobs, jobs" to cover-up the ecological and economic destruction this project would wreak, local opposition is educating the public about the true story: wildlife habitat destruction, pesticide poisoning, and risk of loss of local jobs in lobster fishing, clam digging, mussel, sea cucumber, sea urchin, baby eel gathering, commercial fishing, guiding sports for fishing and hunting, organic farming, and tourism.

As for those jobs promised by King and his corporate cronies, 200 would be seasonal jobs for exploited migrant

workers from Mexico, and the other 75 promised "quality" jobs would be for people turning water valves on and off and putting poisons in the water.

The Cherryfield plan calls for tearing up 1,400 acres of excellent wildlife and fish habitat, installing water-moving machines and harvesting machines to make fake cranberry "bogs". They'll put insecticides, fungicides, and herbicides in the flooded "bogs". These poisonous "bogs" are near streams and the Machias and Pleasant rivers, critical habitat for the endangered Atlantic salmon.

Back in 1987 a New Jersey outfit tried to build a toxic dump in the same area, saying they could keep the poisons out of the rivers and aquifer with "liners and filters and test wells." It was hogwash then, and it's still hogwash. Water gets into everything and runs downhill, into the aquifer and the ocean.

Neither Cherryfield Foods nor the Department of Agriculture knows what

chemicals are in the pesticides, nor what chemicals they break down into, nor how long they stick around. For example, DDT hasn't been used in over 20 years, but its breakdown metabolite, DDE, is still here harming humans and wildlife.

Opponents feel certain that they are pushing this plan through quickly because of the proposed upcoming citizens' referendum which would ban putting pesticides in Maine's waters.

Governor King has assigned Cherryfield its own team of public bureaucrats to help them get around laws that don't allow contamination of Maine's waters. In addition, the US Department of Agriculture is handing out tens of thousands of dollars in taxpayer subsidies to support a project of this type.

Opponents ask why the governor doesn't give some of that gift "grant" money to independent clean jobs such as: small, diverse farms, greenhouses

where we can grow almost anything, solar-retrofitting our houses so oil bills don't bankrupt us every winter, planting fruit and nut trees for food and wind-breaks, decent public transportation, helping growers change over to non-poisonous farming, community gardens so people without jobs can help grow their own food, and so on...

These ecologically sustainable jobs would help United States citizens, not foreign corporations.

If Cherryfield Foods really wants to do something constructive, instead of wrecking 1,400 acres of wildlife habitat, they could build cranberry "bogs" in their ruined blueberry fields, where they have sprayed too much Velpar and everything is dead.

To protect Washington County from subsidized toxic development, contact CLEAN: Maine, POB 186, Jonesboro, ME 04648; Tel/fax 207-434-6228.

NH Herbicides

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currently reviewed by a number of state agencies, including the Division of Forests and Lands, Department of Human Health Division of Risk Assessment, Department of Fish and Game, Department of Environmental Services, and the State Entomologist. Indications are that agency reviews, which last year were a quick and easy process, have suddenly become more careful and time consuming. The Department of Fish and Game, in particular, has sustained a certain amount of heat from the public for its easy approval of aerial herbicide permits in previous years. According to Fish and Game officials, the Department is "re-evaluating the process by which aerial spray permits are reviewed".

Industry is doing its best to convince legislators and agencies that chemical management of New Hampshire forests is benign and advantageous. It would be politically naive to imagine that any State agency would betray the interests of the largest corporate landholders in New Hampshire at the insistence of even the noisiest community-based opposition. However, the evidence is in on the environmental implications and acute toxicity of the mixture Mead plans to spray over yet another watershed, and public awareness of these implications is growing. Coincidentally, public confidence in the agencies reviewing the permits is diminishing.

Mead has good reason to try to avoid the increased public participation made possible by the proposed rule revisions concerning aerial spray applications. The local community here in the North Country does not need much convincing that any aerial spray program is a bad idea. The well publicized "mistake" in which Champion sprayed ten acres of forest in Maine under a New Hampshire permit has further convinced the public that state regulation and monitoring is less than infallible. As yet, Champion International has not applied for a permit to spray in 1997. Company representatives refused to discuss the matter with the Herbicide Project, saying only that this information was "confidential".

In fact, public opposition is so strong that an appeal of the Mead permit, in the event that it is approved by the Division of Pesticide Control, seems inevitable, whether or not the Herbicide Project can raise the ten thousand dollars we need to do it with legal counsel and expert witnesses. Local communities are not going to tolerate having our children's lives and the integrity of the natural systems we love put at risk for much longer.

What is going on here in New Hampshire is part of a nationwide movement to challenge the right of chemical companies and industry in general to poison the earth for the sake of profit. Most people don't have to be convinced through reading peer-reviewed, scientifically cautious research. We all know that the incidence of environmentally related illness is rising dra-



matically because it affects us and the people we love. We don't have to rely on studies to tell us that there are less fish in streams that run through clearcut areas, or that there are less wild bees, or birds, or wildlife in general in an area that has been sprayed with herbicides.

Although most of the opposition to chemical poisoning and lack of protection of the public health by EPA and other relevant agencies is still underground, it is growing in size and ferocity. What will it take to reach critical mass? Will we be able to stop the manufacture and use of millions of hazardous substances before life on earth is completely compromised? Only time will tell.

¹ Swadener, C. *Tridopyr*. Journal of Pesticide Reform (vol. 13, no. 3) 1993, p. 29.
² Swadener, p.32.

Update on Proposed Maine Pesticide Referendum

Since the Forum reported on CLEAN: Maine's citizen referendum to stop aerial pesticide spraying and to stop the introduction of pesticides into Maine's waters (Autumn Equinox, page 3) the Maine Farm Bureau has sued the Maine Secretary of State, saying the ballot question isn't "clear", which, by law, it must be. CLEAN: Maine cannot collect signatures while the ballot question is in litigation.

This delaying tactic has worked so far. CLEAN couldn't collect signatures at the polls in November without resolution of the wording of the ballot question. The Farm Bureau lost in Maine Superior Court, which said the question is fine. But the Maine Supreme Court is taking longer, although CLEAN expects a ruling any day now.

The ballot question bans aerial spraying of pesticides; it prohibits introduction of synthetic pesticides into a well that supplies drinking water for a residence or school, ground water, aquifer, fresh surface waters, or coastal waters. Violation is a "class A" crime—a felony. It requires a state or local agency that receives an application for an exemption or variance from a law or rule regulating pesticides to give notice to the public of this application and to hold a public hearing in the municipalities affected by the application. It provides that the decision whether to grant the exemption of variance be made by vote of the citizens in the municipalities affected by the application.

You can see why—especially the last part calling for some democracy—the poisoners feel threatened. Imagine people making the decisions that affect their lives! Why, it's virtually unheard of, at least in this era.

Our opponents are paper companies, electric utilities (powerlines), state agencies (roadsides and forests), pesticide manufacturers, aquaculture operations (which dump pesticides on caged-fish in coastal waters), and pesticide-using "wild" blueberry, cranberry, apple, potato, corn, and other growers.

Even though people agree with us now, we can expect major distortions and lies, to which we must respond. Our most precious asset is the support of Maine's people. As wonderful and necessary as that is, we still need money to make the calls, print the forms, mail out packages of forms, and drive around speaking and urging on signature-collectors.

How You Can Help End Aerial Pesticide Spraying in Maine: Send any money you can spare to: CLEAN, POB 186, Jonesboro, ME 04648. Our phone/fax is 207-434-6228. Thanks for your support. If you can collect some signatures, please let us know.

High Elevation Timber Management Pact Signed in NH

by Jamie Sayen

On October 29, 1996 several major northern New Hampshire landowners, in partnership with the state Fish & Game Department and the state Division of Forests & Lands, signed a Memorandum of Understanding to cooperatively manage forest land above 2700 feet in elevation. The public/private agreement affects over 33,000 acres of forest in the northern region of New Hampshire.

High elevation forestland is inherently more sensitive than forest lands below 2700 feet in elevation. It has shorter growing seasons, thinner soils, and, in New Hampshire, it is critical habitat for the rare pine marten.

The voluntary agreement took over two years to negotiate. A representative of New Hampshire Timberland Owners Association facilitated meetings between the landowners and state officials. A forest ecologist of the Appalachian Mountain Club was involved throughout the negotiations. Participating landowners are: Dartmouth College, Champion International, Mead Corporation (formerly Boise Cascade), International Paper Company, Hancock Timber Resource Group, Crown Vantage, Wagner Forest Management, and Fred Foss of Columbia, NH.

Key elements of the pact are:

- **Forest composition and structure goals:** "At least 60% of the area should remain in stands with an average tree diameter of four inches or greater. No more than 30% of the area should be in stands with an average tree diameter less than four inches or without adequate stocking. At least 10% of the area should remain unharvested."

- **Access priorities:** "(1) winter skidding of wood and no roads above 2700 feet; (2) winter skidding of wood to roads above 2700 feet; (3) summer skidding to roads below 2700 feet; (4) summer skidding to roads above 2700 feet."

Interestingly, stocking standards are essentially the same as those proposed by the Ban Clearcutting in Maine Referendum of 1996—an initiative that was fought bitterly by several of the signatories of this agreement.

The agreement discourages, but does not prohibit, clearcutting and whole-tree harvesting above 2700 feet.

Signatories of the pact can make changes in the event of natural "catastrophes" such as insect or disease epidemics, forest fire, or windstorm. Sale of lands "shall automatically release said lands from the terms of the agreement." The agreement is in effect for five years, and either party "may exercise the right to terminate the agreement by sending written notice to the other party 30 days prior to the effective termination date..."

Eric Kingsley, Executive Director of the NH TOA hails the agreement as "the largest cooperative piece of ecosystem management among exclusively private landowners in the northeast and probably the nation. It shows they are willing and ready to work with government and conservation groups to establish protection of sensitive areas."

The Nash Stream State Forest easement with the US Forest Service

prohibits any logging above 2700 feet because of steep elevation, shallow, fragile soils, and low productivity. When asked why anyone should consider cutting in such a fragile area Kingsley responded: "The ownership goals and objections on private land are very different from public land. The landowners feel they have found a way to harvest forest products, protect critical habitat, and safeguard water quality. This agreement allows them to meet those goals while protecting public values."

When asked if these landowners would be cutting in such high elevation stands if they had not overcut their holdings below 2700 feet, Kingsley responded that these lands have always been part of the landowners' timber base. He noted that many owners, such as Champion, are adopting the Triad approach in which some lands are managed for traditional industrial forestry, some are intensively managed (clearcuts, plantations, and herbicides) and some are managed for "other values." The high elevation lands, as "other values" lands will not be managed as intensively as other industry lands.

Dave Publicover, the AMC forest ecologist who participated in the negotiations believes the pact is potentially a good one, provided there is follow-up. He notes that the agreement is currently rather general and success will require significant and ongoing input and monitoring from NH Fish & Game. He believes that after three to five years we will be able to evaluate its success in protecting fragile high elevation ecosystems under timber management.

Publicover calls the agreement "a very good test case of the non-regulatory voluntary approach" to setting forest policy. He is optimistic that it can succeed because, he notes, the landowners who signed on generally oppose regulation of forest practices, claiming that a voluntary non-regulatory approach is sufficient. Thus, the landowners have an incentive to show such an approach can work. Publicover does worry about the "institutional memory" of the landowners and agencies participating in the pact. Will their organizations continue

to support the agreement once the negotiators have left or retired?

Critics of the proposal feel that high elevation lands are too fragile and too unproductive, whether in public or private ownership, to justify any timber harvesting. They also maintain that if industrial lands had been better man-

aged over the years, there would have been no need for such an agreement. Nevertheless, they acknowledge that if such cutting is to occur, any safeguards—even voluntary ones that can be terminated quickly—are better than nothing.



SmartWood Program Certifies NH Firm

In late January the National Wildlife Federation and the SmartWood program of the Rainforest Alliance announced certification of the first forest management company in the Northern Forest region, Northeast Ecologically Sustainable Timber (NEST), based in Dover, NH. The SmartWood program's goal is to reduce the negative environmental impact of logging and ensure sustainable forest management.

Certification requires that forestry operations protect local biodiversity and watersheds, minimize damage to remaining forests, prevent overcutting of forests, develop positive relationships with local communities, and conduct forest restoration activities on degraded land, among other criteria.

The certification was conducted by the National Wildlife Federation, whose regional office, the Northeast Natural Resource Center, is collaborating with the SmartWood program to make certification available across the region.

Operations that meet certification requirements, as well as companies that process and sell products made of wood from these sources, can use the SmartWood "seal of approval" on their products. This certification mark provides special recognition in the marketplace for wood products that come from sustainably managed forest lands. Certification contracts are renewed on a five-year basis and involve annual audits by the NWF/SmartWood program to ensure compliance.

NEST principal James "Chip" Chapman, a consulting forester with 18 years of experience in New Hampshire forests, led the initiative to become certified. His company currently manages approximately 3,300 acres of land encompassing 19 forested properties.

"Independent certification of my forest management and logging jobs such as that provided by the NWF/SmartWood program gives logs from my clients a market edge for those who want to buy wood from environmentally sustainable sources," Chapman said.

Under the program, NEST underwent a comprehensive evaluation of company policies that included four days of field work in the forest by a three-person team of regionally-based professionals with experience in forest and wildlife ecology, logging systems, and forest economics.

As the basis for certification of NEST as a "Well-Managed Source" under the NWF/SmartWood program, the independent team prepared a comprehensive report containing findings on 59 separate criteria, ranging from: protection of critical wildlife habitat, forest regeneration, diversity of tree species, logging road construction, inventories of growing stock, management planning systems, and forest products utilization.

James "Chip" Chapman of Northeast Ecologically Sustainable Timber can be contacted at 603-740-9797. The National Wildlife Federation's SmartWood program can be contacted at: 58 State St., Montpelier, VT 05602; tel 802-229-0650

Comments on the Vermont Compromise on Forest Liquidation Legislation

by Andrew Whittaker

Vermont's Forest Resource Advisory Council will soon be submitting a proposal to the state legislature on the regulation of clearcutting. The implication of its current form is that the Department of Forests and Parks will be drafting rules aimed at curbing liquidation logging on large tracts of land.

FRAC is responding to public demand for forest policy that addresses today's rash of logging without standards. Four foresters offered a proposal to distinguish forestry and liquidation, and subject the latter to Act 250 review and exempt "forestry" from review. (In its first incarnation, a state wildlife biologist termed the Four Foresters' proposal a "timber production act.")

Several environmental groups subsequently met in negotiation with these foresters and sought agreement on acreage and basal area triggers that would somehow delineate forestry from liquidation. FRAC then stepped in and mediated what it considers a compromise position.

Unfortunately, several untenable elements remain. While rulemaking would develop minimum standards for harvests of wood, these standards would also only apply to acreage above a cer-

tain threshold. It is expected that industry will press for a high trigger and environmentalists for a lower (with various parties now weighing in at 75, 40 and 25 acres).

Further, no explicit upper limit on clearcut size is presently proposed. While some suggest that clearcuts will be effectively capped at acreage triggers, others are not so sure. With rules and criteria merely voluntary below the trigger, Vermont will have dodged the challenge and opportunity to address the key ecological and silvicultural question of the day: what are the rational limits to clearcuts?

Below are my comments on the general nature of this compromise and what must be addressed to give Vermont a forest policy that does not merely reflect arbitration between interest groups. The public good is at stake in this legislation. Sound forest policy must advance social goals without carving out significant exemptions that only encourage liquidation to change its form—not disappear.

Nature of the Problem

The conservation-minded public has agreed—indeed, insisted—that the state of Vermont should control forest practices that are indefensible silviculturally or ecologically.

Clearcuts that dominate a landscape visually also dominate it ecologically and silviculturally. They imply shifts and changes in landscape processes that result in waste and nuisance: economic opportunities are squandered and impacts cross property lines. The worst forest practices also pose a threat to the public trust which owners of forest land uphold (or abrogate): waters, wildlife and the evolutionary potential of forest ecosystems.

Foresters often argue that clearcuts are necessary to redress historic patterns of highgrading. Highgrading, they say, has so diminished forest quality that they must clearcut and "start over." Their argument establishes that highgrading is yet another form of liquidation—a lessening of productivity that results in extreme and potentially harmful measures, lessened economic values and general waste. Regulation should therefore address high-grading as well as clearcutting.

Objective

To address liquidation therefore requires a policy objective of formulating minimal standards for forest harvests that prevent nuisance, waste and unwarranted harm to public trust. This has long been a goal of Vermont forest policy. The state Forest Practices Act of 1949 established criteria for cutting

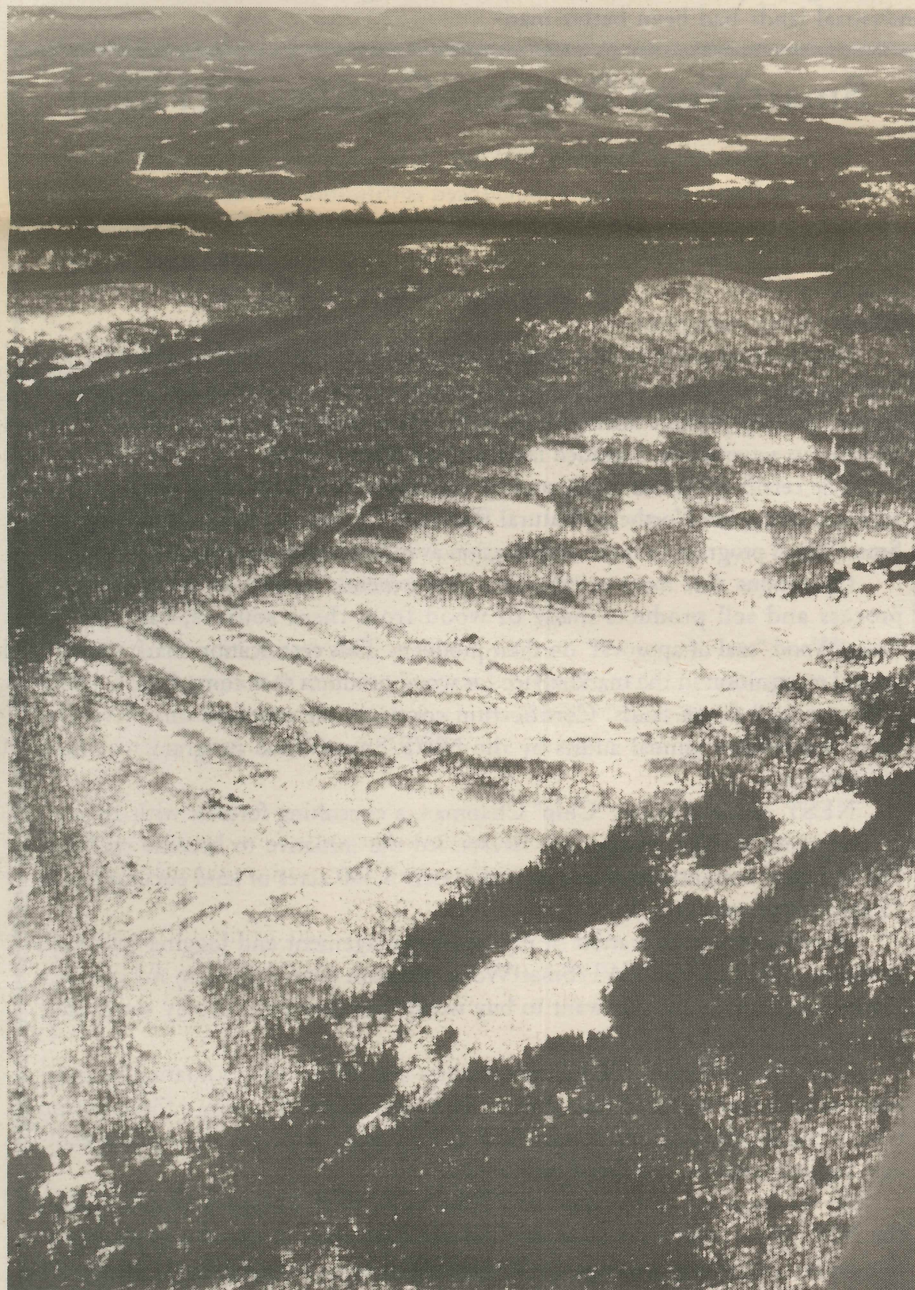
practices that largely, and in sum, imply protection of timber quality, natural regeneration, optimal timber growth, water quality safeguards, and soil productivity. This act established standards for clearcuts and partial cuts, and termed the latter "generally recommended" [over the former].

Today, we have a broader understanding of forest ecology. On the economic plane, we know that ecosystem processes safeguard forest productivity: logs and lumber, even water and mushrooms. On the ethical and spiritual plane, we also see the need to protect ecosystem integrity for its own sake. So today our development of 1949's criteria must go beyond a "timber production act."

Therefore, it would be retrograde to pursue in 1997 any objective that weakens the goal of minimal standards in forestry. Part of the development of these criteria ought to be an explicit charge to address the question, what are the ecological and silvicultural limitations on clearcut size? And, below this size, what standards should be observed to avoid undue adverse impacts?

Overall Goal

The Vermont Compromise ought to be that we agree on rulemaking to establish minimal standards and look to other means of achieving broader goals



Vermont may soon adopt a rulemaking approach to address large-scale clearcuts like the one above in Central Vermont. Some interests would, however, like to limit the applicability of such rules. In effect, this would rob Vermont of the opportunity to answer the question, what are the valid parameters for clearcutting? What are the ecologic limits to clearcut size? Political compromises provide no such answer. Vermont should adopt rules that define minimum standards for all harvests of wood. Photo © Gustav W. Verderber.

The Unconscious Civilization

by John Ralson Saul

In his inaugural address, President Clinton proclaimed: "Government is not the problem, and government is not the solution. The American people are the solution." Unfortunately, and perhaps intentionally, President Clinton neglected to identify the problem. If you want to learn about the problem, read *The Unconscious Civilization* by John Ralston Saul. Saul is Canadian, but much of what he says applies to the U.S. This book has won an award in Canada recently.

Saul has things to say that many will not like to hear. For example, Saul argues that referenda are anti-democratic because they lend themselves so easily to the politics of ideology. Increasingly, the ability and willingness of rich individuals and large corporations to enter into these contests and finance powerful media campaigns have meant that the outcomes of these ballot questions are determined by who has the best financed campaign. As a neighbor of mine who taught for a year in Montreal commented to me after November's trying referendum to ban clearcutting in Maine, "I think I prefer democracy."

The marketplace, while useful for some purposes, cannot lead or encourage democracy. The problem is that the ideology of the marketplace has taken hold and made us unable to see reality—for example, who benefits from deregulation and who does not? What is the role of the public good? Is there a disinterested view that represents the benefit of society or is everyone a member of some special interest group?

Some see government as the enemy of the individual. Saul says we can take issue with the notion that less government is better. In fact, we should wonder why we, the citizenry, should put artificial limits on our only force. "The power we refuse ourselves goes somewhere else. Yet no other legitimacy is capable of disinterest."

Saul's contention that corporatism has transformed our society from one of individuals to one of groups will ring true to many environmental activists:

I would argue that our society functions today largely on the relationship between groups....society is seen as a sum of all the groups....Serious, important decisions are made not through democratic discussion or participation but through negotiation between the relevant groups based upon expertise, interest and the ability to exercise power.

Saul concludes that once groups are established as the source of authority, they require acquiescence. Individualism on the other hand requires participation in society. Corporatism sets about reducing the individual to a state of passivity, a subject of the will of the legitimacies, i.e., whichever groups hold power. Society is based entirely on measurable self interest and citizens easily take no responsibility for their society, instead finding legitimacy in corporatism. That one assumption about the ultimate authority defines everything else: power, organization, attitudes both public and private, ethics admired or condemned or ignored. Thus, we have an unconscious civilization.

—Reviewed by Pamela Prodan

of sustainability. While, for instance, long rotations and all-aged stands should become part and parcel of forest policy, there are simply too many variables in forest management to mandate them. On the other hand, minimum standards can and should address such topics as the appropriateness of whole-tree harvests on specific sites and conditions that should guide its application if permitted.

The compromise should not be on who gets shielded from upholding the minimum. A review of states with forest regulations—including Vermont with its AMPs—shows that seldom if ever does a statute exempt through an acreage trigger certain harvests from rule. While such triggers may be used to require permits, plans, or intent-to-harvest notification, they are seldom if ever used to shield an operator or landowner from upholding minimal standards. Vermont would not be either in the middle or front of the pack on establishing workable, effective regulation but at the rear were it to use an acreage trigger in this fashion.

While we may want to discuss what happens at 25 or 40 acres, we should not consider it a compromise of anything other than principle to accede to the demand for no applicability below these figures. Use these as caps to clearcuts, triggers for intent to harvest or other negotiable points. But to use them as barriers to rule is counter to custom, precedent and good policy.

Beyond the Minimum

At this point, the question of sustainable forest practices—what they are and how to apply them—is wide open. Many ask, why not a Vermont Forest



In 1949, Vermont adopted voluntary rules on logging, pursuant to a 1945 Forest Practices Act. The intent of these rules was, among other things, to protect the productivity of forest soils. Today, industry clearcutters are impoverishing forest soils through reckless timber removals that lay soil bare to sun, wind and water. Vermont needs to adopt mandatory rules now. Photo © John McKeith.

Practices Act? The agreement that higher standards should not be regulatory is by no means widespread. The future may sustain or weaken such agreement as does exist.

We do need from the 1997 legislature two directives: one on developing rules and regulations to address the worst logging; another on establishing a

process to define optimal silviculture and proposing incentives for achieving it. Such optimal silviculture would reflect our best intention to have forests growing high value sawtimber and protecting or restoring forest ecology. Social benefits of such silviculture would include stability, value-added manufacturing opportunities, and an

attractive, "high-employment" landscape.

The opportunity for genuine compromise that advances the needs and goals of all who legitimately work in and for the forests of Vermont is for us to agree: *minimal standards through rules, optimal guidelines through collaborative process.*

Essential Elements of Forest Practices Regulation

Today, as Maine, New Hampshire and Vermont work toward some regulatory framework, resistance and challenge will be strong. Some property rights ideologues believe that there is no such thing as the public interest and that government exists only to protect property. Others who seek higher standards in forestry lament regulation and believe that it inevitably fails to hit the target. Still more focus only on the power of vested interests and fear to articulate that which must be done.

Good forest policy can be achieved. Clear intent and objective are necessary. Certain basic elements are key to avoiding or sustaining legal (and political) challenge—and should strengthen other aspects of policy design. Below, I provide my comments to excerpts (printed in bold type) from Paul V. Ellefson et al.'s "Regulation of Private Forestry Practices by State Governments" University of Minnesota Station Bulletin 605-1995.

—Andrew Whittaker

According to Ellefson, defensible policy should:

- **advance well-defined and legitimate state interests in private forest property;**

Comment: the state of Vermont, in its Forest Practice Act of 1945 established state interest in the maintenance of forest productivity. Although the rules promulgated were voluntary, they establish state interest in: soil productivity; regeneration; water quality; timber growth; species diversity; forest ecology to the extent it supports forest productivity. Criteria also addressed clear-cutting and partial cutting, with the statement that the latter is the preferred method. The federal Endangered Species Act, as well as the recent Nulhegan Basin Mgt. Agreement between Champion and Vermont, both indicate the interest of the people in protection of plants, wildlife and ecosystems.

- **complement long and well-defined histories of public policy favoring environmental protection and land-use control;**

Comment: To the above, we could add reference to Act 250, with its intent to address landscape conversions beyond the control of municipalities and its review of logging above 2500 feet and its general development criteria that developments not unduly impact the productivity of forest soils. Vermont also has Acceptable Management Practices and Wetlands Rules intended to protect water quality from logging impacts, and standards intended to protect deeryards.

- **promote the distribution of program benefits among many, widely-dispersed segments of society;**

Comment: the public discussion of herbicides in forestry has established that economic benefits from forests are manifold and that detriment from poor forest practices is felt by the people. Vermont has long recognized that forest stewardship provides benefits that are economic and social cornerstones. This is one major premise of the Current Use program.

- **avoid the promotion of severe reductions (diminution) in the value of private forest property;**

Comment: a major problem posed by liquidation practices is that they lower property values. Highgraded lands are being marketed for development since their timber value has been diminished. Forest regulations that addressed liquidation would actually enhance the protection of property values.

- **avoid denial of all economically viable uses of private forest property, especially as such might result from standards which require permanent physical occupation of private property;**

Comment: regulations establishing minimum standards for harvests of wood would in no way impact the practice of legitimate economic use of timber land. The enhancement of economic opportunities are in fact a key goal of such regulations.

- **involve the application of rationally based and reasonably constructed forest practice standards;**

Comment: rulemaking that involved forest ecologists, biologists, silviculturists, and others with forest expertise is rational and a fair process with public input assures reasonability.

- **link regulatory standards (required forest practices) very tightly to state interest in private forest property;**

Comment: to achieve regulations consistent with state interest, we need only build on past regulation (as above) with a clear objective in mind: to establish minimum standards for the harvesting of wood in Vermont.

- **avoid burdensome and overly complicated procedures that, in fact, deny use and management of private forest property;**

Comment: clearly stated rules that establish general criteria that must be attained and that reflect good work already being done in the field will minimize complexity. Enforcement that is targeted to the perpetrator and not the bystander is key: i.e., if existing plans and operations are within criteria, they shouldn't have to go through extra procedures to satisfy bureaucratic appetite for paper.

- **avoid arbitrary and capricious application of forest practice standards.**

Comment: the Agency of Natural Resources has yet to be over-zealous in enforcement of the AMPs. Our Department of Forests and Parks is staffed by competent and judicious professionals. Our judiciary often shows signs of not fully understanding the responsibilities of forest operators. We run little risk of an out-of-control enforcement of forest regulations.

Forest Liquidation: Logging as if the Future Didn't Matter

by Mitch Lansky

You are standing in a recent "timber harvest," that, by state definitions, is not a clearcut. If clearcuts are the problem, how can this be the solution? In front of you are trails every 35 feet with deep skidder ruts. The remaining trees are spindly and sparse. Many are wounded or bent. The yarding area is a muddy mess on both sides of the logging road, making the effective road width more than 100 feet. There are huge piles of slash. It doesn't look like a forest. It looks wrong.

What you are looking at is not an example of forest management or silviculture. It is the logger's attempt to maximize short-term income with little concern for the future. It is a tree mining operation. It is forest liquidation. Liquidation loggers are forest gamblers cashing in their chips. They take the goldmine and give others the shaft. While liquidation cuts are often soon followed by sale of the land, this is not always the case. Some very large landowners convert the trees into money without selling the land. The money goes where it grows fastest—which is not on spindly, damaged trees. More likely it will be reinvested out of state—in a pulp mill in Alabama, for example.

Variables of Liquidation

The state has not yet defined when a cut is not a liquidation cut. This is not a simple black and white issue. There is a big gray area; it depends on the degree of taking value now and leaving little for the future. The following are the variables that help define liquidation. While severe abuse in just one of these variables can signify liquidation, when abuse shows up in all three variables, the case for liquidation is clear-cut.

• **Heavy cutting:** Liquidation cuts can be commercial clearcuts or heavy partial cuts. Heavy cutting can lead to a number serious problems:

- understocking (where there are too few trees left to make efficient use of the growing space, and thus productivity is lowered);
- stand shock (where the sudden increase in sunlight can actually damage susceptible tree species and lower productivity);
- windthrow (where shallow-rooted

trees lose sheltered protection from the surrounding forest and blow over); and

—*shift in regeneration* to shorter-lived, lower-value trees (due to the increased light and disturbance).

• **Highgrading:** Heavy cutting alone is not necessarily liquidation. Brooks Mills, a landowner in Eddington, cuts fairly heavily, but what he cuts is the junk and what he leaves behind are the very best trees. He is lowgrading. Liquidators are high-graders. Highgrading refers to cutting the best and leaving the rest. The "rest" can be:

- lower-quality trees* (damaged trees or trees of poor form);
- smaller trees* (this is typical with diameter-limit cuts that remove all the larger trees); and
- lower-value species* (species that have little market value).

• **Stand damage:** A sure sign that the logger is not considering the future of the stand is evidence of excessive damage. Damage can occur on many levels:

- soil* (compaction and rutting, especially on trails and yards);
- roots* (abrasion and severing);
- trunks* (abrasion, bark removal, and gouging);
- limbs and tops* (breaking or wounding during felling); and
- advance regeneration*.

Consequences

Liquidation cutting has serious silvicultural, social, and biological impacts. These include:

Lowered productivity: While forest mining maximizes short-term financial returns, it sacrifices long-term forest productivity. Damage to soil, poor stocking, and damage to residual trees slows growth as well as creates increased susceptibility to wind, insect, and disease problems. With inventory declining and demand growing, it makes little sense to respond with cutting that lowers productivity.

Lowered value: Not only future growth, but also future value declines. A single hardwood tree suitable for pulpwood might be worth less than a dollar, but suitable for veneer or other high-value markets it might be worth more

than 100 dollars. Even minor bruises can lead to staining and changes in grain structure that lower value. By taking the best trees of the best species now and damaging residuals, the logger ensures that there will be lower value later.

Lowered aesthetics: Sloppy logging, whether partial or clearcut, looks bad. This lowers the value of the land to the community and can severely harm the quality of life of abutting landowners.

Lowered economy: Heavy mechanized partial cuts do not employ many people for the amount of wood cut. By ensuring that future values will decline, it means that local employment options will decline. Future wood will be mostly suitable for chips rather than furniture or veneer. There will be less opportunity for high value-added employment.

Lowered land values: can mean lowered local property taxes. Over the last two decades, some towns have had a shift of thousands of acres from softwoods to mixed woods and from mixed-woods to hardwoods. This has led to a loss of thousands of dollars in valuation, shifting the tax burden to others.

Lowered biological values: Damage to the soil, removal of large trees, and excessive opening of the canopy all destroy the value of the forest as habitat for species requiring mature, closed-canopy forests. The insult lasts, because heavy cutting can shift regeneration to disturbance-adapted species, changing the nature of the forest for decades to come. Heavy cutting, and especially poorly designed roads and trails can also lead to siltation and pollution problems in streams and other water bodies.

Occurrence

How widespread is liquidation cutting in Maine? It depends on how you define it. If you set the hurdles low enough, nearly everyone can clear them. Judged by well-accepted silvicultural guides, however, much of Maine logging is marginal or substandard. The worst examples are concentrated on contractor-owned land, industry-owned land, and small-private land. Small-private lands also have some of the best forestry examples.

Heavy cutting: My analysis of a Maine Forest Service (MFS) survey of logging operations in Maine from 1991-1993 (Lansky 1996) found that in partial cuts landowners removed an average of 40% of the basal area per acre. The worst performances were by logging contractors who bought and cut their own lots. They removed an average of more than 60% of the basal area. This means that on half the acres they removed more than 60%—which indicates very heavy cutting.

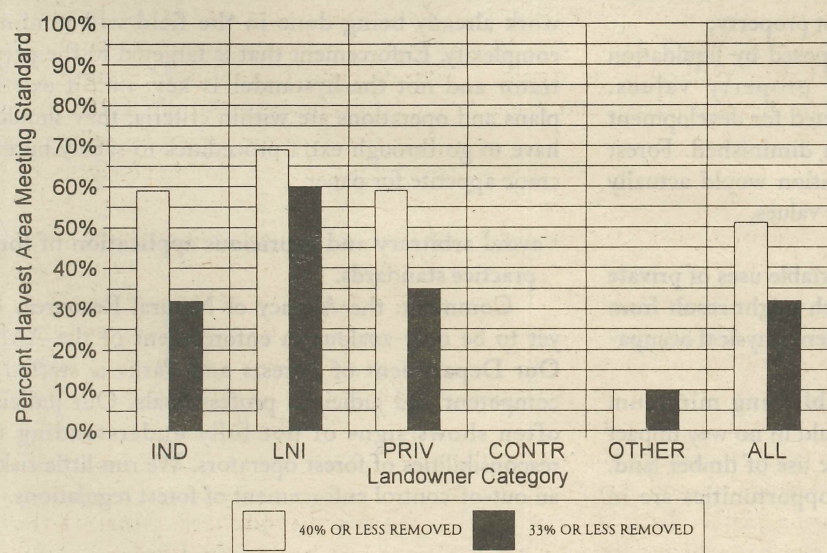
The former figures indicate how much was cut. But how much was left? In the same study, 43% of all partial-cut acres were left silviculturally understocked (had insufficient trees in the overstory for a manageable stand). On contractor-owned land, all of the sampled partial cuts were left understocked. In contrast, on public lands, none of the residual stands were left understocked.

Stand damage: Studies in Maine of partial cuts using whole-tree harvesting show that stand damage can be quite high. Ostrofsky (1994) estimates that around 15-25% of residual trees commonly are significantly damaged and 30-40% receive some wounding through machine contact or felling of trees. An earlier study by Ostrofsky et al (1986) found up to 82% of crop trees (trees of good quality that should be left) were damaged or removed in a whole-tree harvest operation in a birch stand where there were no designated skid trails.

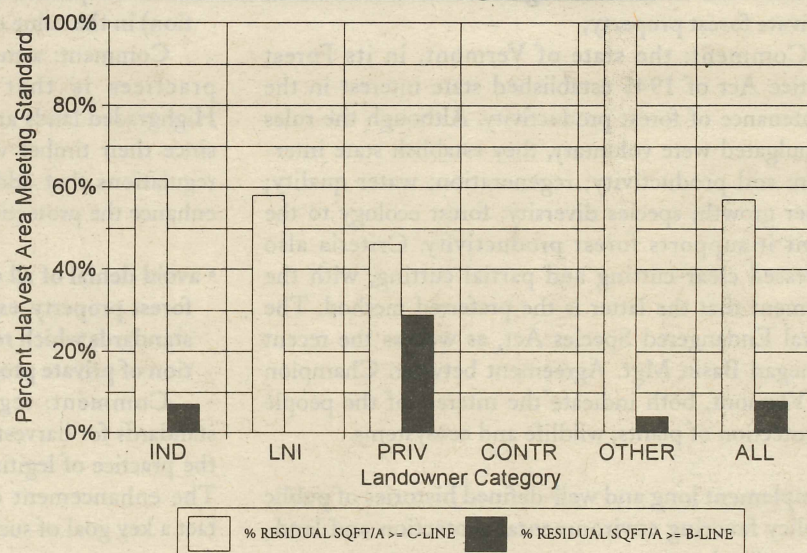
Where there are designated skid trails, the closer the spacing of trails, in general the less damage to remaining trees, but the more crop trees that get removed to make trails. When skid trails are 14 feet wide and 40 feet apart, the trails can remove more than 25% of potential crop trees and disturb 25% of the soil as well.

Harvest quality: The MFS logging survey had a rating system for harvest quality that combined assessment of highgrading and degree of stand damage. According to the this survey, "only" 16% (nearly 58,000 acres per year) of the acres partially cut had what the MFS considered to be very poor harvest quality. Another 30% of the acres, however, had low-marginal acceptable stand quality. Thus nearly half the acres cut were low-marginal or worse. If what is

Forest Cutting Performance Judged by Percent Removal Rate Standards



Forest Cutting Performance Judged by Silvicultural Stocking Standards



"acceptable" to the Maine Forest Service corresponds with Ostrofsky's "typical" operation, resulting in 30-40% damage of residual trees, this is sad indeed.

Once again, the worst performance came from contractor-owners who contributed around one-third of all such cuts found in the survey. Sixty-four percent of their acres were rated poor or very poor quality, and 100% were rated low-marginal acceptable or worse. In contrast, 100% of cut acres sampled on public lands were rated high-marginal acceptable or better.

Harvest Quality Ratings

The Maine Forest Service harvest quality ratings went from "1" to "5." Ratings of "1" indicated heavy highgrading and stand damage so that "the immediate future of the stand was dismal." Ratings of "2" showed "low quality." "3" indicated "acceptable quality, though with improvement obviously possible." "4" indicated "very good quality" but with minor problems. Ratings of "5" indicated "top quality work" (Lansky, 1996). Only two sites sampled out of 117 had a rating of "5." Only 23% of the acres rated "4" or higher.

Since the ratings were averages of all the samples of the stand, the numbers were often in decimals. In my analysis of the MFS data, I call ratings of "3" to "3.4" "low-marginal acceptable," and "3.5" to "3.9" "high-marginal acceptable."

The ratings were subjective calls by the MFS forester. There were no clear standards that would allow other foresters to consistently come up with the same ratings of the same cuts.

Residual timber: Another telling indicator of the highgrading of contractor-owners is the quality of residual timber. Fifty-six percent of the residual contractor wood was too defective to be suitable as sawlogs either now or in the future. In contrast, 38% of residual trees were unsuitable as current or potential sawlogs for all landowners.

Species shifts: Over the last few decades, the state has seen a major shift from spruce-fir to hardwoods and hardwood quality has been poor. While

some of this shift was due to the spruce budworm and to "budworm salvage" (i.e., clearcutting), some of it was due to highgrading. The cut 1982-1995 of red spruce, a tree highly valuable for paper and lumber, was three times the growth. The spruce-fir type fell from 8.3 million acres in 1971 to 6 million acres in 1995. The northern hardwood type went from 4.9 million acres in 1971 to 6.4 million acres in 1995. This creates serious problems for future wood supply.

These shifts in species and quality have been going on a long time. In the pre-settlement forest, the top three hardwood species were beech, yellow birch, and sugar maple (Lorimer, 1977). The top hardwood species now are red maple, sugar maple, and poplar (Griffith and Alerich, 1996). A 1972 USDA Forest Service survey of Maine stated, quite bluntly, that "Most of Maine's northern hardwoods have been managed very little, if at all. Most have been harvested by high-grading methods, which removed only the high-value species or the best-quality trees" (Ferguson and Kingsley, 1972).

Liquidation Economics

What drives the liquidators? Ignorance or incompetence is not a sufficient explanation. Many of the loggers are trained, certified professionals. Often there is a forester involved or even a "management plan." A plea of "temporary insanity" can hardly be made for operations that may take years to complete. Forest liquidators tend to be rational people making rational decisions in an irrational system...with devastating results.

Goals: The goal of the system is to maximize money. Money is a "universal solvent"—a forest can be converted into money and money can be converted into trucks, VCRs, or paper mills. Although an acre of forest and a VCR may have the same monetary value, they do not have the same biological value. They are not interchangeable, even if the economic system sees them that way. Ecological and social values are not well measured in a system that only records market values.

A rational player in our economic system will only pursue ecological or social goals to the extent that they do not interfere with the primary goal of maximizing financial returns. Thus, under our current economic system, it is perfectly rational to damage our life support systems if it is profitable to do

so. As Captain Ahab summed it up, "All my means are sane; my motive and my object, mad."

Capital depletion: Forest liquidators calculate the money coming in from their operations as "income." Under a fuller accounting, the damage done to the soil and residual trees, the decline in forest productivity, and the harm to ecosystem processes would be calculated as a cost. Forest liquidation is not a form of income; it is capital depletion. It does not rely on the biological interest or surplus; it draws the system down so that there is less true interest in the future.

Leveraged land: Purchase of large parcels are usually highly leveraged. Often, the value of the timber is greater than the value of the land. The buyer borrows heavily, knowing that he can quickly pay back the loan through liquidating the trees. When woodlands come on the market, leveraged liquidators can out bid buyers interested in longer-term forestry.

Ironically, during debate over the referendum, some contractors and their

Leveraged, Leveraged Land

Liquidators will buy any woodlot worth cutting. Lately, however, thousands of acres of former Tribal Lands and lands formerly owned by Diamond International have come on the market. Liquidation cutting has been widespread on these former Diamond lands, remnants of the leveraged-buy-out of Diamond International by Sir James Goldsmith in 1983.

When the Diamond lands first started coming on to the market in the late 1980s conservation organizations and state governments panicked. They feared that huge parcels would be liquidated and sold to real-estate developers. Thus began the six years and millions of dollars spent on the Northern Forest Lands Study and Northern Forest Lands Council. The council never directly addressed the obvious reason why people were selling land (to make money). Instead it came up with complicated schemes to reduce forest land taxes, and emphasized purchase of easements. The problem of liquidation persists—much of it, ironically, on former Diamond lands, now twice leveraged.

foresters were claiming that regulations would reduce the value of the land and thus be a "takings." Actually, liquidation is a takings of the value of the land to the community. Well-designed regulations would stop that takings and stabilize prices.

Leverage money: Contractors, seeking to buy large parcels costing millions of dollars have turned to other liquidators, the federal government (Farm Credit), and paper companies for quick cash. An article in the *Bangor Daily News* last December 14 revealed that Champion International and Georgia-Pacific have been giving short-term loans (or paying for wood in advance) to contractors in "timber deeds."

The paper companies are desperate

for wood, having overcut their own lands over the last two decades. The contractors have to cut lots of wood to pay off debts for their expensive machinery, but there is not enough available wood to cut on industry lands. The timber deeds give them a temporary secure wood supply, which they must cut within a few years. It is a match, but not made in heaven.

Sustainable Forestry?

The paper companies are signatories to the American Forest and Paper Association's Sustainable Forestry Initiative. Members promise to preserve biodiversity, protect water quality, maintain wildlife habitat, ensure reforestation, protect lands of special significance, and minimize the visual impact of harvesting on their own lands. They also promise to ensure that all the wood they buy, even from woodlot owners and contractors, is managed to ensure sustainability. These timber contracts, in contrast, force heavy cutting in the short term. A number of these cuts are under investigation by the Maine Forest Service for possible violations of the Forest Practices Act (an act that is very difficult to violate). The representatives for the Sustainable Forestry Initiative in Maine are: Charles Levesque, former executive director of the Northern Forest Lands Council, and Gro Flatebo, a consultant on ecological issues who is married to Kent Wommack, head of the Maine Chapter of The Nature Conservancy.

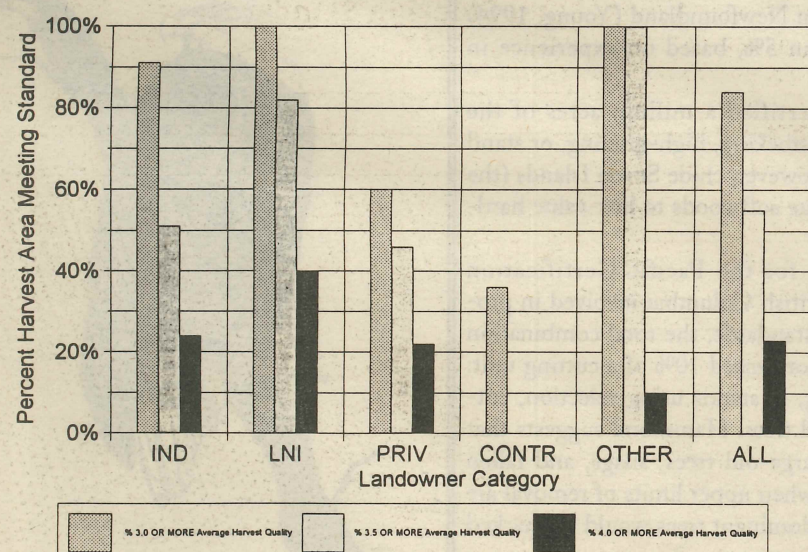
Leveraged cut: The heavy cutting doesn't just damage the forest. Little of the money from the cut stays locally—it goes to equipment manufacturers, banks, and other creditors, such as paper companies.

The contractors are paid for the value of the wood cut, not the value of the forest left behind. The heavy, debt-induced cutting floods the market with timber produced with many "externalized" costs (i.e., damaged forests and degraded communities)—artificially cheapening the wood supply. This is good (short-term) news for paper companies (who like cheap wood), but bad for other woodcutters and small woodlot owners trying to earn an honest wage.

Liquidated real estate: After the cut, the land has little value for timber. Who wants cut-over land? In some cases, large landowners, such as Baskahegan Lands, have bought the land for cheap (less than 1/10th the price that Baskahegan got for selling an easement for development rights on land abutting a flowage), assuming that if they wait long enough, some wood will grow back. Often, however, the land is bought by real-estate "developers." They buy the land cheap and then jack up the price for buyers more interested in a house in the mythical Maine Woods than a manageable woodlot.

Tax consequences: Most of the larger lots being liquidated are under

Forest Cutting Performance Judged by MFS Harvest Quality Ratings



Who Are the Developers?

Some unsavory characters and companies have gotten into the liquidation-speculation game. This includes, locally, the Patten Corporation. Patten is still trying to sell thousands of acres of liquidated former Diamond lands in Prentiss—land that isn't even near rivers or lakes. Over the last decade, Patten Corporation was subject to major suits from defrauded purchasers throughout the northern-forest region.

A number of large local contractors are using the services of Mary B. Gregor, a real-estate agent from the Houlton area. Ms. Gregor was recently convicted of fraud and sentenced to prison and home detention. She pleaded guilty to mail and wire fraud, using false names when she sold land she did not own and in sales of land mortgaged to third parties. She also used false names to cheat newspapers from Maine to California that ran her advertisements. Even after her conviction, she has been selling land she purchased from a liquidation cut in nearby Drew Plantation. Apparently, she is allowed to sell land that she owns.

the Tree Growth Tax Law (a current-use tax). While this tax is supposed to promote sustainable forestry and deter development, it doesn't do either. In fact, the tax is so low (around a dollar an acre per year or less in some areas) it allows landowners to retain liquidated forests for years with little penalty.

When the land is sold, only the segment converted to a houselot requires penalties for conversion—the rest can stay under Tree Growth. The tax is a subsidy for liquidation. As growth rates decline and stands shift to lower-valued trees and species, the tax goes down. There are no requirements for long-term silviculture for those under Tree Growth.

Liquidation Management Plan

A management plan is now required under the Tree Growth Tax Law. The plan, however, does not have to meet any silvicultural standards. The Bangor Daily News article in December gave an example of a management plan written up by a forester for a liquidation cut. The contractor, Gupit Logging, purchased the land with a loan from Georgia-Pacific. The plan, written by forester Gerald Poulin, states that:

"This landowner, who is in the logging business, has an objective of gaining the maximum income possible from the resources available on this lot... This land is part of a timber deed arrangement with Georgia-Pacific Corp. The terms of this arrangement call for the timber to be harvested and sold to G-P within a two-year span, so some of the options concerning the timber on the land are limited."

Changing Direction

Maine has had a number of "solutions" to liquidation since the 1970s including the Tree Growth Tax Law, the Land Use Regulation Commission, the Forest Practices Act, the Northern Forest Lands Council, and the Maine Council on Sustainable Forest Management. None of them has worked. None of these initiatives directly attacks the problem. None of them sets clear standards defining the problem. None sets up a logical process to ensure the standards are met. None assures accountability of the landowners, foresters, and loggers. All the initiatives have relied on committees with members with conflicts-of-interest (i.e., timber-industry representatives who were opposed to regulations).

Part of the Compact was a promise for a study on liquidation. Compact members seemed interested in passing a real-estate speculation tax, similar one in Vermont. A speculation tax would miss liquidation cuts that are not sold in the short-term. It would be vehemently opposed by real-estate interests and, probably, some small woodlot owners. If passed there will undoubtedly be exemptions for size of lots that could be used as a loophole. My conversations with Vermonters has not convinced me that this "solution," which does not directly address forest practices, has solved the problem.

Setting standards: A first step in solving the problem is defining it. What levels of stocking, highgrading and stand damage are unacceptable? What levels are desirable? The State of Maine has no standards defining understocking, highgrading, or stand damage. Under the Forest Practices Act, almost anything goes. We need a credible silvicultural board that does not have members with conflicts-of-interest, to set credible standards.

Reaching standards: To reach the standards, operators need to have the knowledge, the equipment, and adequate compensation. There must also be accountability of the foresters and loggers.

• **Knowledge:** Key to lowering the negative impacts of logging is having foresters and loggers who are well trained to do so. Avoiding damaging

crop trees or sensitive areas requires proper timing and advanced planning for layout of trails and yards and marking of trees. Training programs for foresters and loggers must start emphasizing reducing impacts. Public lands and experimental forests can have demonstration areas where foresters, loggers, and landowners can see examples of recommended practices.

- **Equipment:** Good operators can lower impacts with many different types of equipment, including skidders. Some machines, however, are simply too big, and require too much area in trails and yards (25% or more of the stand as opposed to around 7% for low-impact systems) for acceptable partial-cut operations. The Pacific Certification Council rules out whole-tree harvesting systems because, "This practice robs forest ecosystems of important short-term ecological capital, and therefore is not ecologically responsible."
- **Compensation:** The economic system needs to reward loggers for good management. Under a piece-rate wage, loggers are penalized for removing small quantities of low-value wood and for taking time to take care. There need to be incentives for quality.

Not all cuts can be money makers for landowners. On sites needing rehabilitation, the cutting should be seen more as an investment than income. We need an economic accounting system that can distinguish income from capital depletion.

Whether the cutting earns money depends, to a large extent on markets. Due to market domination by a handful of vertically-integrated companies, wood in Maine is undervalued. Some operators in similarly dominated areas are making even light cuts viable by very carefully selecting each stick of wood for the highest-paying markets (McCann, 1995). A woodlot cooperative in New Brunswick recently bought a hardwood mill to assure better paying markets for members.

- **Accountability:** Foresters writing management plans for or supervising liquidation cuts are violating their professional code of ethics. Loggers who do liquidation cuts are harming the

reputation of their profession. There needs to be some internal policing against malpractice. Abusers should lose their licenses. Professional forestry and logging organizations should attach as much shame to forest liquidation as would fall on a minister caught exiting a whore house.

Conclusion

Forest liquidation is profitable and it is legal. When I asked forest economist and author of *Ethics in Forestry*, Lloyd Irland, why liquidation is wrong, he replied, "Because it is wrong." Trying to pass regulations to restrain liquidation, but leaving economic incentives intact that encourage leveraged forestry is like putting your foot on the brakes and the gas at the same time. We need a more comprehensive approach to the problem. Current solutions are not working.

To the extent that forest industry lobbyists have successfully warded off meaningful standards, or even discussion of such standards, they have successfully defended incompetence and malpractice. Protecting short-term profit maximization has hurt the long-term forest viability in the state. As Jack Kerouac said, "You pay through the nose for the short lived shows."

References

- Ferguson, R.H. and N.P. Kingsley, 1972. *The Timber Resources of Maine*. USDA Forest Service Resource Bul. NE-26. Broomall PA. p. 31.
- Griffith, Douglas M., and Carol L. Alerich, 1996. *Forest Statistics for Maine, 1995*. Northeastern Forest Experiment Station. Resource Bulletin NE-135. Radnor, PA. 134 pp.
- Hammond, Herb, 1996. *Pacific Certification Council Standards for Ecologically Responsible Forest Use*. Silva Forest Foundation. British Columbia. 51 pp.
- Lansky, Mitch, 1996. *After the Cutting is Done, What's Left: An Evaluation of Forest Practices in Maine 1991-1993*. Wytotitlock.
- Lorimer, Craig, 1977. "The presettlement forest and natural disturbance cycle of northeastern Maine," *Ecology*, December.
- Maine Council on Sustainable Forest Management, 1996. *Sustaining Maine's Forests: Criteria, Goals, and Benchmarks for Sustainable Forest Management*. Department of Conservation. Augusta. 54 pp.
- McCann, Sharon, 1995. "The Lumby log sort yard: the hidden success story." *International Journal of Ecoforestry*. Vol. 11, no. 4. pp. 130-132.
- New Hampshire Forest Sustainability Standards Work Team, 1996. *Draft: Recommended Voluntary Forest Management Practices for New Hampshire*. 113 pp.
- Ostrowsky, William D., 1994. "Impacts of Partial Harvesting on Stand Quality and Forest Health" in *Proceedings of the Twenty-Second Annual hardwood Symposium: Opportunities for the Hardwood Industry to Address Environmental Challenges*. Cashiers, North Carolina. pp. 53-61.
- Ostrowsky, William D., R. S. Seymour, and R. C. Lemin, Jr. 1986. "Damage to northern hardwoods from thinning using whole-tree harvesting technology" *Can. J. For. Res.* Vol 16. pp. 1238-1244.
- Young, Eric, 1994. "Residual stand damage assessment following commercial thinning" *Internal Report #11*. Forest Products & Development Division. Newfoundland Forest Service.

Standards Elsewhere

Other states and organizations have standards for stocking, and stand damage. New Hampshire's Forest Sustainability Standards Work Team, in its *Recommended Voluntary Forest Management Practices*, recommends leaving adequate stocking (B-line or better) of higher-quality trees (to be determined by a forester). It suggests that logging damage can be reduced to less than 10% of the residuals. A report on residual stand damage from Newfoundland (Young, 1994) recommends keeping stand damage to less than 5%, based on experience in Scandinavia.

Scientific Certification Systems, which certified a million acres of the Pingree heirs, did not mention any standards for stocking, high-grading, or stand damage in their summary document. They did, however, chide Seven Islands (the firm managing the lands) for converting high value softwoods to low-value hardwoods.

Herb Hammond has prepared standards for the Pacific Certification Council, five organizations from California to British Columbia involved in promoting ecologically-based forestry. Under these standards, the total combination of landings, skid roads, and skidding routes cannot exceed 10% of a cutting unit. Although he does not specify degree of stocking, in stands using selection, cutting would be light—no more than 20-30% of all trees. Hammond suggests that landowners remove no more than 10% of the large-old trees, snags, and fallen trees. Cutting cycles would be 20-30 years apart when upper limits of removal are reached. Thirty percent of the dominant and co-dominant trees would be marked for retention.



Three New Maine Forest Reform Bills Address Liquidation



Recent clearcut just south of Kokadjo, east of Moosehead lake. Photo © Barbara Shamblin.

Representative Paul Volenik (D-Sedgewick), has introduced three bills in this session that could put a dent in forest liquidation while improving economic prospects for woodlot owners and loggers. The philosophy behind the bills is to set clear goals and set up a credible public process to meet the goals. This is in contrast to bills that impose very specific numbers into a very complex issue in a manner that leaves both the public and legislators very confused.

Tree Growth Tax Law

The first, "An amendment to the Tree Growth Tax Law," cites the Maine Council on Sustainable Forest Management's contention that "Public policy should not subsidize activities that encourage less-than-excellent forest management."

The TGTL is a subsidy, and it does reward liquidation cutting and other forms of mismanagement. Although the TGTL requires a management plan, currently there are no standards for this management plan. Having minimum, silviculturally-based standards for management plans would not inconvenience those interested in long-term management, but it would help stop short-term liquidators.

The amendment would require that the management plan specifically address the issues of overcutting, unwarranted clearcutting, understocking, highgrading, stand damage, and pesticide use.

Maine Silvicultural Board

The second bill would create a Maine Silvicultural Board that would

have as a mission to set measurable standards concerning the above goals. The board would set minimum standards but also give recommended standards. The makeup of the board would include silvicultural experts from the Bureau of Public Lands, the Baxter State Park Scientific Management Area, the University of Maine, USDA Forest Service, as well as scientists, regulators, and knowledgeable citizens.

Maine Forest Policy Roundtable

The third bill would create a Maine Forest Policy Roundtable that would address key forestry economic and labor issues that were neglected in the Northern Forest Lands Council and the Maine Council on Sustainable Forest Management (MCSFM). The MCSFM identified the following issues which it did not address:

- raw log exports,
- workers' compensation,
- mechanization,
- regional shortages,
- piecework pay rates, and
- corporate domination of local communities.

They concluded that these issues "lie beyond the council's mission as given by the Governor, and outside the areas of expertise represented on the council."

The council did not reject the need to address these issues. Indeed, the document stated that, "they are serious issues that must be debated, and where possible, resolved in the public policy arena. While current economic trends do not offer much solace to out-of-work loggers or declining rural communities, Maine's quality of life, the future of

rural communities, and the future direction of Maine's economic policy hinge on the outcome of such a debate. This debate should bring to the table as wide a representation of affected stakeholders as possible. It should attempt, at a minimum, to establish a common under-

standing of the problems, challenges, and barriers to rural prosperity; and, beyond, that, general agreement on the policy steps that need to take place." The Roundtable would be such a stakeholder group.

—ML

New on the Northern Forest Bookshelf

- Grant, Richard. *Tex and Molly in the Afterlife*. Avon Books. \$24.00. A thinly veiled romp through the craziness of late 20th century Maine in which forest spirits take on corporate forest greed and more.
- Hunger, Bill. *Clearcut: A Novel of Bio-Consequences*. 1996. Hampton Roads Publishing Co. \$11.95. A chainsaw massacre thriller.
- Irland, Lloyd. *Ethics in Forestry*. 1994. Timber Press. \$39.95. An eclectic collection of readings examining professional, business, environmental and governmental ethics related to forest management.
- Kaza, Stephanie and Davis TeSelle. *The Attentive Heart: Conversations with Trees*. 1996. Random House. \$16.00. About connecting spiritually with trees up.
- Kotzwinkle, William. *The Bear Went Over the Mountain*. 1996. Bantam Doubleday. \$22.50. A satire about a bear from the Maine Woods who steals a manuscript and heads to New York to take the literary world by storm.
- McKenney, C. Ross and David Kendall. *Language of the Forest*. 1996. North Country Press. \$14.95. Old-time woods wisdom.
- Newman, Bob. *The Complete Guide to Hunting in Maine*. 1996. Down East Books. \$13.50. Another in the author's series of hunting guides to his home state.
- Pierson, Elizabeth, Jan Pierson and Peter Vickery. *A Birder's Guide to Maine*. 1996. Down East Books. \$23.95. Best book yet on the topic.
- Platt, David (ed). *Penobscot: The Forest, the River and Bay*. 1996. Island Institute. \$14.95. Depicts in words and graphics the pulse of Maine's greatest watershed, though, despite the title, the forests are given scant coverage.
- Pollack, Elizabeth. *The Gathering*. 1996. North Country Press. \$19.95. This sequel to *The Roantree Crop* is another mystery set in the mountains of western Maine.
- Rzasa, Paul. *Atlantic Salmon Fishing in Maine*. 1996. Little Guy Press Inc. \$19.95. Explains the "madness" that afflicts salmon anglers and lovers.
- Scudder, Brent. *White Mountain Viewing Guide*. 1996. \$15.95. How to see great scenery.
- White, Michael. *A Brother's Blood*. 1996. HarperCollins. \$22.50. A mystery about a German who tries half a century later to find out how his brother drowned while at a WW II prisoner-of-war camp in the Maine Woods.
- Wolf, Donald. *Big Dams and Other Dreams*. 1996. University of Oklahoma Press. Glorifies civil engineers, many trained at U Maine, who built the industrial American West, including Grand Coulee, Hoover, and Bonneville Dams; monumental ecological missteps, though it is unfair to judge the past by the present. Perhaps some Mainers will atone as great restorers in the next century.
- Compiled by Jym St. Pierre

Tree-Growth Tax—The Law of Intended Consequences

by William Butler

Maine's so-called Tree-Growth tax law took effect in 1972, when the assault on the Maine woods was raging in full force. As a town assessor, I testified on this scheme at the State's hearing in Orono; I was the only proponent or opponent there, although the auditorium was full of industry people, including John Sinclair, the legendary Seven Islands manager. Later, Robert Meskers of the tax bureau told me that no other statement, pro or con, was presented at either of the two other hearings. My opinion was that the principle invoked in the law was the best way of taxing timberland I had seen, but I opposed it because of one fatal flaw—it assumed good faith on the landowner's part. (As a contractor with some of the Maine paper companies, I already had reason to believe they were liquidating the forest.) In avoiding overtaxing well-stocked holdings, it created the incentive to reduce the land tax by reducing (or eliminating) the stocking level.

Given any opportunity to further avoid a tax, Maine forest owners are certain to help themselves. The industrial owners in Maine's unorganized territory, the North woods that were, do this by reporting which of their acres of forest are predominately softwood, hardwood, or a mixture of these two. In informal conversation, Mitch Lansky caught me saying, "the cheap bastards hate to pay taxes." Let me explain; disliking or avoiding paying taxes may be a universal trait in our society, and is not the basis for that characterization. Cheap bastards strip the forest, export enough spruce, pine, and cedar to sustain 2,500 mill jobs in Canada, bring in 2,000 foreign commuters who displace native workers. That isn't all; our big landowners (down to the size of Roger Milliken, with 108,000 acres) join in the general conspiracy to keep their wood sales from entering the calculations which determine forestland taxes.

Here is how it is done: The Tree-Growth tax is based on current use, rather than on potential use for a more profitable purpose. This statement alone does not define how to keep the land value lower than that for development as house or camp lots. For Tree-Growth purposes, land value is derived from the supposed worth of the net growth on an "average" acre, "capitalized" as the amount of a savings account which has that annual increment. The US Forest Service provides the growth number in its forest inventory.



Logging operation in central Maine. Photo © John McKeith

How does one turn the number of cubic feet of wood growing on trees into \$/acre? This is one of the occasions where the Maine Forest Service steps in and does a number on the people of Maine; MFS carefully collects sale prices for timber products—logs, pulpwood, veneer wood, chips, but only from small landowners in open market transactions. The value of wood from the company land used in its mills is not reported, nor the price received for, say, the 150 million board feet of logs the Pingrees must ship to their Canadian mills to support what they told us were "600 jobs." Inter-company sales, like Georgia-Pacific selling its spruce chips first to Boise, and lately, to Great Northern, also do not enter the data base. Only the little fish who sell in the market still dominated by the size of the industrial holdings must report their receipts.

With the current growth figure and only some piddling stumpage prices in hand, the MFS now turns cubic feet of wood per acre per year into a dollar amount. For cords of pulpwood this is straightforward, but for logs sawn into lumber MFS provides the factor converting cubic feet into the corresponding number of board feet of lumber. Here their pro-industry bias is most

operative, but well hidden from public view.

They write the program which tells the State's computer how to calculate land tax under Tree-Growth, using a measure of cubic feet of wood required to yield a unit of board feet of lumber; this factor I found in my 1994 study of log scaling (*see Forum*, vol. 4 # 3, page 30) ranged around 200 cubic feet of log per 1000 board feet (MBF) of lumber. By contrast, log requirement in a middle-tech stud or dimension lumber mill sawing seven-inch diameter or larger logs is less than 100 cubic feet; this is the size of most of the logs International Paper and the Pingrees send to their captive Canadian mills just over the border. Even mills sawing pine lumber need at most 160 cubic feet of log per MBF for six-inch logs, ranging down to 100 at two-foot diameter.

It may be noted that the just-described calculations, known as the lumber recovery factor, neglect the volumes and values of the so-called residues, the slabs, edgings, and sawdust that long ago were wasted. These comprise as much as 60% of the volume of the smallest logs, declining to 25% for two-foot giants. For a paper maker, these "residues" are the better fiber in the tree, with a value greater than the lumber produced. Credit our industrial landowners with capturing this as part of their log price, unreported to the tax authorities as a "stumpage" payment and, therefore, not entered into the land value calculation.

For softwood land, the 1996 mean value across Maine's 16 counties is \$155 per acre. Mixedwood (softwood less than three-quarters of the stocking, but greater than one-quarter) mean valuation is \$106, and an acre of predominately hardwood is worth \$77. Thus, the tax assessed on mixedwood land is two-thirds of that on softwood. Hardwood pays only one-half of the tax on softwood. This is the incentive for our forest owners to report when they have reduced the proportion of soft-

wood in a parcel of land. Most of them have availed themselves of this boon. And this is how we got a record of what they have done to the forest of Maine.

These bogus values effect a shift of tax to neighbors—someone has to make up the revenue for schools, roads, and other public services. Tree-Growth, as it is known, and similar dodges are not victimless crimes. For example, forest land in Perry, in Washington County would be assessed at \$500 per acre with no shore or road frontage we were told by a local owner; under the Tree-Growth, this land is valued between \$77 and \$45 per acre. In Aurora, my home, a Georgia-Pacific contractor with a \$3 million USDA government loan paid \$300 an acre for land that was assessed at \$74. If someone has a lot of land in your town under these scams, you, even if you have a small woodlot sheltered, are paying the tax he avoids. With declining state support of school cost local property owners are clobbered with a double load.

The law provides that "Municipalities shall be reimbursed up to 90% of the taxes lost." This weasel-worded bit is honored with only, at most, 20% of the tax shifted; in Eastbrook with half of the town under Tree-Growth, there have been recent years with no state refund. The refund, of course, is money mostly from the personal income and sales taxes. Ironically, any refund benefits those who avoided the tax as much as those who, in effect, paid three-quarters of their industrial neighbor's tax.

After 25 years, some are beginning to see what a poor deal this version of a current-use tax has been. Belatedly, there is talk of linking the tax shelter to better forestry. Most of the horses have left the barn. Any real solution would require that landowners get the real value of their wood. This would raise timberland assessments to real value. Finally, it would stop tax displacement from those with the most property to those with the least.

How Maine Calculates the Tree Growth Tax

The Tree-Growth taxing formula thus developed is:

growth rate (times) weighted stumpage value (equals) value/acre/year, expressed by the following formula,

$$\frac{\text{ft}^3}{\text{Acre/yr}} \times \frac{\$}{\text{ft}^3} = \frac{\$}{\text{Acre/yr}}$$

which represents the value of the wood grown on the acre last year. Our landowners argued that this annual increment was not all harvestable and should be discounted accordingly: they got a 10% reduction in the annual growth figure.

With this discount factor applied to the wood growth, and the suspect MFS volume conversion factors, our equation now says that the value of the annual growth on an acre of softwood in 1996 is \$13. The State doesn't call this the value of an acre of softwood, but figures the amount in a savings account earning, at 8.5%, \$13 per year (in other words, divide \$13 by .085). This sum is \$155.

Maybe They Thought No One Would Look Dept.

Seven Islands Softwood Inventory Shows Extensive Forest Degradation

by William Butler

In 1995 Scientific Certification Systems certified timber management operations on lands of the Pingree heirs in northern Maine as "sustainable." Seven Islands, the Pingree forest management firm, admitted that SCS had criticized their converting too much land from softwood to mixed or pure hardwood stands. Notwithstanding this and other dubious practices, Seven Islands and Pingree received their certification.

Since 1972, industrial landowners have recorded forest type acreages on their lands with the State Tax Assessor's office in Augusta, in accordance with Maine's Tree-Growth tax shelter. Because there is a steep differential in assessed value for softwood, mixedwood or hardwood stands, owners have a substantial financial incentive to tell the tax man how much they have of each and to report reductions in acreage of the higher-valued softwood or mixed wood stands. (See the related account—"Tree-Growth: the Law of Intended Consequences.")

A sampling of the Pingree-Seven Islands statements is shown. The numbers list only the acreages of timberland, not developed or "unproductive" land. The state tax records omit smaller parcels but, with a coverage of 700,000 acres, certainly represent management that John Cashwell, Seven Islands president, often states at "over a million acres." Significantly, the forest type changes enumerated occur in the "unorganized territory," the half of Maine which lacks local government and, thanks to "just-a-housewife" Mary Adams, contributes nothing to the state's general fund.

The numbers paint an ugly picture of forest degradation occurring in the spruce-fir forest type of which only fourteen years ago there were six million acres. Spruce (and fir) is arguably the tree in Maine with the highest commercial value with respect to both the forest and manufacturing employment associated with it. The quality of Maine hardwoods must yield in comparison to those of regions to the South and West.

In my time, spruce and fir covered a reported eight million acres. Ecologically and economically, it is what grew best here. In the US Forest Service Decennial Survey of 1995, spruce-fir is reduced to about four million acres—which says nothing of declines in volume and net growth. As the USFS survey notes, hardwood has replaced softwood as the most common forest type, with 6.4 million acres recorded. The Pingree figures show how this shift occurred on one ownership.

Seven Islands demoted 240,000 acres of 423,000 acres of softwood reported in 1972. This entailed cutting a great portion of softwood trees in forest stands formerly at least three-quarters softwood. To do this on a quarter-million acres implies some heavy removals, which we have indeed witnessed. I once asked Robert Seymour, University of Maine professor of Silviculture, how he and his colleagues could endorse the Pingree certification,

The Pingrees are not alone in having afforded the public a clear view of what they have done to their woods. As will be presented in the next issue of the Forum, other large owners have also recorded extensive forest degradation. Conspicuously bad are some of the most vociferous opponents of the recent initiative on clearcutting. One owner who remained quiet on the referendum however shows little loss of softwood type. It is certain that the Pingrees occupy the nadir.

given how many acres of raspberries occupy the lands they have managed. His response: certification was predicated more on future management plans than on the historic record.

The Pingree figures show an increase of 110,000 acres of mixedwood type. Not all of the softwood diminution is represented in this increase. Further, mixed wood may be as little as 24% softwood, which may mean that more declines in softwood have been masked. The hardwood category, land depleted almost entirely of softwood, gained 115,000 acres.

As John McNulty of Seven Islands told an Ellsworth symposium on log export, 600 mill jobs in Canada depend on his wood. The forest type changes show one of the costs to local economy—positive contribution to which is supposed to be a criterion for certification. (Many strongly hold that the Pingrees are not green, but greedy.) Robert Hintze, head of International

Paper in Maine, has admitted, "Our sawmills are in Quebec because of the subsidies there; when we get as good a deal in Maine as we do in Quebec, the mills will be in Maine."

But job export is not the only negative impact on local economy of timber type conversions—the tax base is affected as well. We can calculate the tax reduction Seven Islands could show their client. The land valuations for Aroostook County, the location of most Pingree holdings shown here, are \$189/acre for softwood, \$107 for mixedwood, and \$53 for hardwood. Looking at Township 9, Range 7, owned entirely by Pingrees, the 1996 tax on 22,080 acres—the whole township—was \$22,030. In 1996, the forest land value was \$2.5 million; the 1972 forest would have had a value of \$3.3 million. The tax avoided on this one town owing to timber type conversion is \$7,000. Over the 700,000 acres in our ample sampling, the tax shifted to oth-

ers is proportionate—in the neighborhood of \$200,000 per year.

The Pingrees are not alone in having afforded the public a clear view of what they have done to their woods. As will be presented in the next issue of the Forum, other large owners have also recorded extensive forest degradation. Conspicuously bad are some of the most vociferous opponents of the recent initiative on clearcutting. One owner who remained quiet on the referendum however shows little loss of softwood type. It is certain that the Pingrees occupy the nadir.

What these numbers in the essential forest type of Maine show is forestry as a wasting disease purporting to be its own cure. The forest liquidation shown in the Pingree numbers need not be achieved by clearcutting. "Clear cuts" have declined; sad to say, neither the recent 2A initiative nor the sorry "Compact" would have stopped the current practice of leaving enough "junk" to avoid the clearcut definition. Both measures were poorly devised to prevent the previous sort of assault, which we might call Forest War I, rather than addressing Forest War II. The latter is about finished on most of the industrial land, but is raging on smaller, private holdings. Beware of those who insist that clear felling is necessary: in spruce and fir it is disastrous, as Stephen Manley, a forester from Canada with a Ph.D. in forest genetics, and even Ralph Griffin at Orono, foresters both, have said.

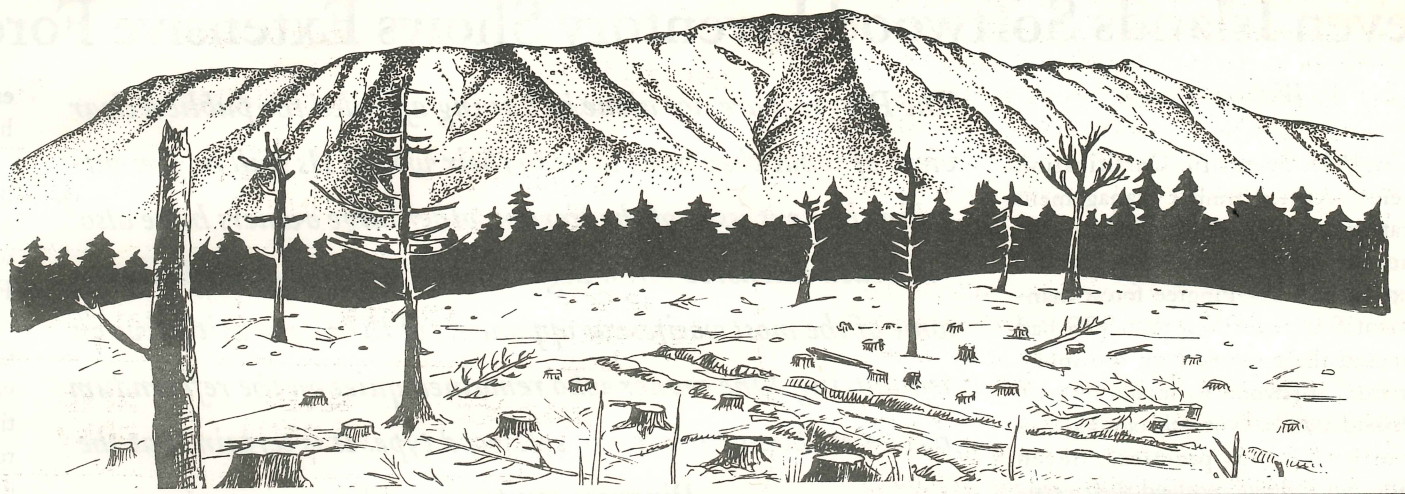
Pingree Heirs Forest Type Changes
(Columns give 1972 and 1996 acreage by forest type and percentage of change)

Township	Softwood			Mixedwood			Hardwood			Total 1972*	Total 1996
	1972*	1996	% change	1972*	1996	% change	1972*	1996	% change		
16R14	19422	8266	-57	6398	14366	125	2653	5954	124	28473	28586
9R7	12736	6220	-51	8678	10100	16	81	5017	6094	21495	21337
10R7	14373	6664	-54	6310	10878	72	387	3228	734	21070	20770
10R8	2238	1302	-42	1037	2272	119	2519	2186	-13	5794	5760
11R7	2227	1038	-53	7811	5056	-35	1312	5223	298	11350	11317
11R8	7940	2636	-67	10209	10932	7	4142	7810	89	22291	21378
11R9	8102	3412	-58	2358	4517	92	591	2857	383	11051	10786
11R15	6038	926	-85	1563	4482	187	3270	5585	71	10871	10993
12R15	16833	6199	-63	4090	10910	167	1411	5093	261	22334	22202
13R5	16552	6593	-60	5845	10366	77	1407	6291	347	23804	23250
13R15	14926	6875	-54	6267	9720	55	530	5200	889	21723	21795
14R5	17476	8113	-54	6548	11143	70	2116	6105	189	26140	25361
15R13	6165	2019	-67	2781	4241	52	1767	4281	142	10713	10541
15R14	8170	2733	-67	2355	4958	111	25	2770	10980	10550	10461
15R15	16207	6527	-60	4568	10800	136	519	4168	703	21294	21495
18R11	5282	2123	-60	5077	5025	-1	3725	6985	88	14084	14133
18R13	5547	2505	-55	1382	3251	135	537	1740	224	7466	7496
18R12	2126	293	-86	1473	1940	32	92	1397	1418	3691	3630
19R11	6075	1447	-76	3195	4005	25	1469	5271	259	10739	10723
19R12	16028	3466	-78	8397	11783	40	1751	10911	523	26176	26160
3R3	4464	1032	-77	8803	6513	-26	5501	10988	100	18768	18533
C Surplus	2371	1023	-57	1258	3901	210	5990	5358	-11	9619	10282
4R3	7379	3107	-58	6993	9217	32	5965	7449	25	20337	19773
4R5	7078	2888	-59	4658	6591	41	1711	3812	123	13447	13291
4R4	11127	3255	-71	10490	14521	38	3891	7626	96	25508	25402
C Surplus	8805	2899	-67	6702	12789	91	8192	7783	-5	23699	23471
8R13	11644	6607	-43	3343	6398	91	276	1405	409	15263	14410
8R12	14452	6584	-54	2842	8749	208	68	1630	2297	17362	16963
6R15	13696	8708	-36	5526	8954	62	1532	2731	78	20754	20393
7R13	15384	11023	-28	2537	4966	96	257	1196	365	18178	17185
8R7	5402	2873	-47	4005	6076	52	628	1132	80	10035	10081
7R14	10220	3980	-61	3064	6387	108	2060	4008	95	15344	14375
7R15	5187	2706	-48	3995	4267	7	811	1293	59	9993	8266
8R10	10567	4847	-54	8796	8911	1	1620	4680	189	20983	18438
8R11	10757	3995	-63	3949	7812	98	594	2088	252	15300	13895
8R14	10220	4585	-55	4695	6161	31	2396	6076	154	17311	16822
9R9	5988	2701	-55	8229	7992	-3	8427	11715	39	22644	22408
9R11	6835	2110	-69	2906	5881	102	802	2491	211	10543	10482
9R12	7396	3222	-56	761	4308	466	172	705	310	8329	8235
9R13	14297	4713	-67	4517	10201	126	713	3755	427	19527	18669
10R9	11026	6051	-45	3116	5124	64	1622	4430	173	15764	15605
10R10	5200	1827	-65	4344	4988	15	2691	4842	80	12235	11657
10R15	15486	10379	-33	3462	6243	80	1815	3366	85	20763	19988
DR2	1465	632	-57	5461	3232	-41	911	3664	302	7837	7528
	420909	181104	-57	210794	320927	52	88949	202295	127	720652	704326

Note: * indicates 1972 or earliest report
Data are for forest land, excluding water, bogs, ledge, gravel pits, roads & camp lots

Maine Woods Watch

by Jym St. Pierre



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

And the Band Played On: For those paying attention to issues concerning the Maine Woods, 1997 is going to look a good deal like 1996. The forest practices debate will kick-up again as soon as the second vote is scheduled on the Forest Compact. "Wise use" extremists continue to dream up new ways to exploit the natural features and resources of Maine's big woods. Local folks continue to feel pushed up against the wall by the shifting global marketplace which is leaving them, and their traditional guardian angels in the forest industry, in an economic backwater eddy. Conservationists continue to fight each other over the scraps of remnant wilderness. The industrial strength debate grinds on over the fate of wildlife in an industrializing landscape. The peoples' representatives—national, state and local governments—remain oblivious to the Big Picture. They do not see the Big Problems ruining one of the last Big Places, so they have no clue what Big Solutions to try. The good news is there will be plenty of opportunities to get involved for those who want to help give voice to the woods, waters and wildlife.

Compacting the Forest: Remember Question 2, with its A, B, or C choices, on the November 1996 ballot? The numbers and names have changed, but the issues remain. The ad hoc political action group that brought to the fore the referendum to ban clearcutting and stop overcutting (2A) has morphed into a new permanent organization. The stated purpose of the Forest Ecology Network (FEN) is to "protect, preserve and defend the native forest environment of Maine through public awareness, citizen activism and education." Director Jonathan Carter says FEN believes environmental leadership should not be about compromising away Maine's clean air, pure water and healthy forests in backroom deals. Carol Haas, who chairs the FEN board, does not mince words about the Compact for Maine's Forests, which was advanced by the King Administration to derail the Ban Clearcutting referendum. "The Compact was an expensive and well-executed public relations stunt, which has left too many citizens of this state believing the self-fulfilling prophecy that the heavy hand of corporate money makes it no longer possible for citizens to intelligently determine their own economic, social and environmental future," Haas insists. But FEN is not interested simply in exposing the Forest Compact. The group plans to engage the legislative melee expected this winter/spring.

In fact, a lot of players are lining up to play blackjack at the forestry table in the Legislature's house of cards. FEN, new home of the 2A campers, has four proposals in the works. One to stop clearcutting. A second to mandate tough stocking standards under the Tree Growth Tax Law. A third to prohibit corporate contributions to ballot initiatives and establish campaign spending limits. A fourth to prevent public officials from using state assets to influence campaigns. (Contact FEN, PO Box 2218, Augusta, ME 04338.)

The Natural Resources Council of Maine, a leader

on the Forest Compact (2B), has a bundle of bills in the legislative hopper too, everything from tinkering with the Compact to tackling liquidation logging. (Contact NRCM, 271 State Street, Augusta, ME 04330.)

The none-of-the-above advocates (2C) plan to have their say as well. Senator Vinton Cassidy is introducing a bill to "cap" clearcuts at 50 acres. (Contact Stop the Backroom Deal, PO Box 111, Garland, ME 04939.)

Before placing your bets please note that this whole legislative gambling operation may be suspended depending on how the judicial branch rules soon. The Maine Supreme Judicial Court has been asked by the governor whether the Legislature can adopt the Forest Compact or other changes to the Forest Practices Act without giving voters a second whack at the Compact as contemplated by the state constitution.

Water & Weather: While the Forest Compact speculation plays out, what to do about toxics in Maine's waters and air is shaping up as the next big gamble. Since 1990 there has been a 44% reduction in the total amount of toxins released to the environment from Maine sources, including a 25% drop in air toxics in the past two years. Yet there is still a lot of worrisome effluent.

Last April Gov. Angus King announced that seven Maine pulp and paper mills had agreed to clean up their dioxin discharges so that fish consumption advisory warnings could be lifted by 2000. A working group of interested parties was formed. By December the group had fractured. The Natural Resources Council, Maine Peoples Alliance, and other environmental groups as well as the Penobscot Indian Nation pulled out of the stakeholders' council charging that the industry would not honor their commitment to terminate dioxin discharges because they would not agree to stop using chlorine. Industry and its defenders counterattacked with a barrage of op-eds slamming the "eco-zealots" for conducting a "witch hunt" for a deadly problem where none has proven to exist. The paper companies assert that they have spent \$100 million to reduce dioxin discharges to near-undetectable levels. For instance, International Paper Company said in December it had eliminated detectable dioxins from its Jay mill by switching from elemental chlorine to chlorine dioxide for bleaching. Environmentalists still insist the mills need to change to a totally chlorine-free bleaching process to ensure there will be no dioxin discharges. The issue may now surface in the Legislature or go to public referendum. (Contact MPA, 359 Main Street, Bangor, ME 04401.)

Some folks in central Maine are eyeing paper mill waste as a remedy for water quality problems. The Maine Dept. of Environmental Protection, in cooperation with Bowater and Kimberly-Clark paper companies, is advocating paper tailings as a soil additive to increase water-holding capacity. A pilot project is underway in the Sebasticook Lake watershed.

A petition drive to ban aerial spraying of pesticides is still on hold. But organizer Nancy Oden is gearing up to gather signatures. Jon Olson, executive director of the Maine Farm Bureau, says he has sued over the wording of the proposed referendum because it would make putting pesticides in Maine's waters a major crime, whether the act was intentional or not. Oden counters that any pesticide spraying into public waters

is an attack with a deadly weapon. (Contact CLEAN: Maine, PO Box 186, Jonesboro, ME 04648; Maine Farm Bureau, 4 Gabriel Drive, Augusta, ME 04330.)

All this fuss over environmental protection may be moot if a couple of trends continue: timber theft and climate shift. Official complaints about fiber rustling in Maine have doubled every year since 1993. In 1996 more than 700 possible violations were reported. However, only a dozen of them made it to court because of the strict legal test to prove that the tree heist was done knowingly, recklessly or negligently. A new legislative proposal would get rid of the need to prove intent as long as there is proof of theft. As for climate change, "Altitude Lou" McNally, Maine's weather guru, claims that, based on ice core samples from Greenland, in 20 years temperatures will have dropped so dramatically it will be hard to find a deciduous tree in central Maine. Anyone want to place a wager on which gets the forest first, clearcutting, timber theft or climate cooling?

By the way, David C. Smith, who literally wrote the book on the history of logging in Maine, claims his latest research suggests that cold weather two centuries ago was a major cause of the American Revolution. Smith programmed 27,800 data points from 2,000 eighteenth century diaries, crunched the numbers, and found that prolonged cold and killing frosts in the great majority of growing seasons during the 30 years before 1776 caused serious food shortages and widespread discontent in New England. Add the desire for a full stomach to the quest for freedom, liberty and justice to the reasons this great nation was jump started.

Plans, Pigs, Pipelines, & Power: After years of studies, draft documents, and hearings, the Land Use Regulation Commission (LURC) is creeping toward a final decision on its revised comprehensive land use plan for the Maine wildlands. Facing one remaining tough decision, in late December the commission blinked. On a 4-3 vote LURC members rejected language that would have set the stage for identifying areas where woodlands would be protected for forestry. Even though Management-Natural Character (M-NC) zoning was designed to benefit the forest industry by fending off subdivision and development, industry representatives had illegally lobbied some LURC members last summer to dump the concept. The major landowners fear it could lead to wildland set asides with real forestry restrictions. The LURC vote made the use of M-NC zoning entirely voluntary; in other words, it left the large landowners to decide for themselves when they should be regulated for their own good.

Ironically, the LURC vote is backfiring. It has shown that the state cannot be counted on to defend the public interest in Maine's wildlands for the long term. Maine's conservation history is replete with examples of federal action being required to nudge state policymakers. Big thinkers realize once again bold action is needed. Supporters of the proposed Maine Woods National Park say the vote strengthens their support. (Contact RESTORE, 7 N. Chestnut Street, Augusta, ME 04330.) At the same time, state conservationists are so enraged by the LURC vote they are planning to push legislation to require the agency to implement M-NC zoning. (Contact NRCM, 271 State Street, Augusta, ME 04330.)

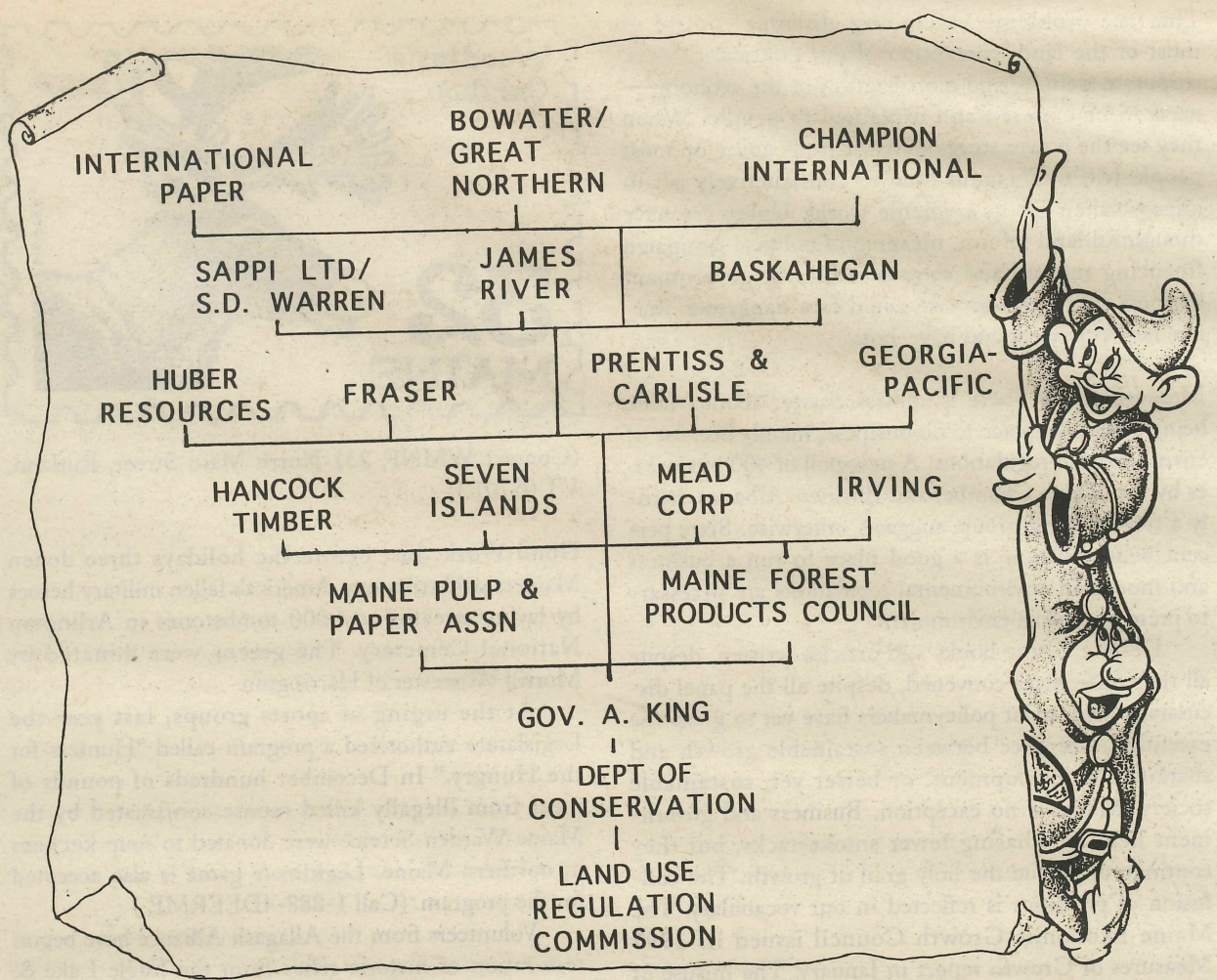
A quarter century ago, during the original legisla-

tive fight over creating LURC, when the forest industry could see they were losing the battle, they realized they could minimize state oversight by securing a statutory exemption for forest management activities. Although there is very little food farming in LURCland, agricultural management activities were added to the legal loophole to ensure that the industry's tree farms would not be bothered. Now a Canadian agribusiness company is proposing to set up an industrial hog operation in T17 R5 and local residents are realizing they are in deep manure. NAP Breton of Notre Dame du Lac, Quebec, wants to buy 25 acres to raise 3,000 hogs a year, with plans for as much as tripling the number of oinkers in the future. Members of the Fish River Lakes Water Quality Association and other citizens are raising a stink about the effect the project could have on water, air and soil quality. An industrial egg facility set up recently in Vermont by the same folks was unsuccessfully opposed by citizen groups there. John Tremblay of Highgate Center, VT, says Breton is expanding into the U.S. because it is easier to get around permitting requirements here. Despite the legal exemption in the LURC law, the Maine Dept. of Agriculture has set up a task force with DEP and LURC staff to look into the impacts of big pig farming. That may come too late for state Senator Judy Paradis who is being pressured by constituents who have gone hog-wild over the wild-lands hog proposal to introduce a law to restrict industrial piggeries.

Developers of natural gas pipelines planned for eastern and western Maine have been signing up paper mills. The Portland Natural Gas Transmission System has struck a deal to sell gas to Mead and International Paper. Maritimes & Northeast Pipeline has agreements with Bowater, Champion, Chinet, Eastern Fine Paper, Georgia-Pacific, James River, Kimberly-Clark, Lincoln Pulp & Paper, and Sappi. The pipeline companies have decided to collaborate on a hundred mile line from Massachusetts to Portland. From there the Portland system will branch to Quebec and the Maritimes line will extend to Nova Scotia. Both branches would cut through wildlands in Maine. The intent is to import natural gas from the Canadian provinces south to major East Coast markets. The Federal Energy Regulatory Commission has given initial go-ahead to the project with an environmental impact statement expected this spring. Developers want to be fully on-line within three years. Retired University of Maine energy expert Richard Hill cautions that the mega project may not be so great for many Maine homeowners who will have to pay the difference if major users leave the existing electricity grid because they can use gas to generate power more cheaply.

Ed Holt, who publishes a national newsletter on so-called green utility rates from his home in Harpswell, Maine, reports that as many as 10 green pricing programs are in place around the country and two dozen more are in the works. The idea is that customers agree to pay higher rates in exchange for feeling good about supporting cleaner power production. Great, except it does not deal with the challenge of reducing demand and the social and land use impacts of alternative power projects. Thankfully Maine's largest such project, a huge facility proposed atop the Boundary Mountains by the now defunct Kenetech Windpower, is still becalmed. EnergyWorks, a large subsidiary of PacificCorp-Bechtel, has decided not to acquire the partially permitted project. The Kenetech Windpower project has deeply split conservationists because of disagreements over energy and land use tradeoffs. (Contact Friends of the Boundary Mountains, PO Box 910, Wilton, ME 04294.)

Chop & Save: Forest products companies are cutting nearly as many jobs as trees lately. Late last year Georgia-Pacific closed its distribution center in Bangor, fired 14% of the local salaried employees, abruptly suspended operations at its pulp and paper mill in Woodland for a few weeks, and shelved a \$50 million capital improvement plan. In January, G-P announced nationwide it was laying off another 150, and in Maine it was closing its oriented strandboard plant until spring, as part of its \$400 million cost slash-



PRESENTING THE NEW LURC ORGANIZATIONAL CHART

ing program. Demand for strandboard is up but the industry has overbuilt capacity forcing prices down. Fears by Georgia-Pacific Maine workers that the company might dump its holdings here altogether have not been calmed by news that G-P has just agreed to sell its particleboard plant, sawmill and 127,000 acres of timberland in California to raise over \$300 million.

In central Maine, Bowater/Great Northern, Kimberly-Clark, and S.D. Warren are not faring much better than G-P. The fall of Great Northern has hit the Millinocket region like a sledge hammer in recent years. Gerald Morrison of the Katahdin Retirees Association remembers happier times. He watches as "the 'magic city' days of the past are fast disappearing: mill expansions, two cars, snowsleds, boats, four wheelers, no empty houses or rents and plenty of businesses and jobs." The downtown is being abandoned. Local schools and municipal services are being downsized. The announced closing of the town's major bookstore in January made front page news. The shifting economy of the region is a big story. Both the **Bangor Daily News** and **Boston Globe** are preparing major articles.

In the Winslow area picketers have become a common sight. Former security guards at the K-C mill in Winslow have been marching to bring attention to what they see as the injustice of their dismissals in November. Meanwhile, union members have been picketing at the Winslow home of the manager of the S.D. Warren paper mill in Skowhegan. They are upset over a long standing deadlock in negotiations for a collective bargaining agreement. At a solidarity rally union members heard from two South Africans who work for Warren's corporate parent, South African Pulp & Paper Industries, about extensive problems at Sappi mills in that country. Then the Occupational Safety and Health Administration cited the Warren mill for 10 violations and proposed a \$105,500 fine. In response, the company has run full page newspaper ads to denounce what it describes as a "smear and hate campaign" by the unions. Warren also canceled the traditional Christmas holiday for workers. By late January, Warren had filed a \$38 million lawsuit against the unions and was offering rewards up to \$25,000 for information on sabotage. Gov. Angus King has tired unsuccessfully to bring the paperworkers and Warren management together.

At the S.D. Warren mill in southern Maine another 45 jobs are being axed. In northern Maine, due to a soft market Fraser Paper shut down paper-making for 10 days in December.

A state investigation of a sloppy logging operation on 6,000 acres in Forkstown Township has brought to light a new tactic being used by paper corporations such as Champion International and Georgia-Pacific to secure wood. The companies buy all the trees on a lot for a lump sum from an independent logger, who uses the cash to help finance purchase of the land. Problem is the logger often has to overcut the lot to make enough for payments. The practice calls into question the commitment of the companies to their own Sustainable Forestry Initiative.

Mad as Hell and Not Going to Take It Any More: The natives are restless. A mob of 75 met in Bangor on December 15 to share stories about frustration and fears of conspiracy. Conservationists were the primary target for the collective anger. Robbie McKay, representing Unorganized Territories United, spoke of the new world order forming to take away property and other individual rights. Michael Coffman, self-appointed director of Sovereignty International, detailed his theory of international cooperation to create vast human-exclusion preserves and usurp parental and child-rearing rights. Bob Voight, head of the Maine Conservation Rights Institute, said environmentalists are waging a coordinated global campaign to make the preservation of nature more important than the rights of human life, liberty and property. Letters and op-eds in newspapers during the next few weeks sounded the same themes.

The day after the Bangor meeting it was reported that State Representative Henry Joy of Crystal has an idea to get even with the other Maine. Joy says "The increased population growth in seven southern counties has resulted in over-harvesting of forested areas, conflicts between man and animal habitat, the loss of that habitat, and noncompliance with the federal Endangered Species Act." Joy is proposing legislation banning all development for two years in southern Maine while a new Board for Equal Economic Development Opportunity made up of native Mainers comes up with rules to level the playing field. Rep. Joy suggests that we can raise the fortunes of northern Maine by bringing down southern Maine. Not so.

Their diagnosis of the source of the problem is wrong and their prescription for a remedy is upside down, but the alienation deeply felt by many folks these days, especially in rural areas, is on point. Conservationists need to be sensitive to the tangible, if misdirected, sense of being left behind shared by an increasing number of honest, hard working people.

The true problems—including absentee control of most of the land, corruption of our political process, corporate welfare, and globalization of the economy—need to be exposed and explained to people. When they see the power struggle that is really going on most people will understand how to constructively act to improve their lot in a volatile world. Unless we have thoughtful land reform, meaningful political campaign financing reform, and serious reform of government business subsidies soon we could face dangerous warfare between haves and have-nots.

Measuring Up: There is endless chatter about Maine being a baaaaad place to do business, mainly because of environmental regulations. A new poll of 400 businesses by the Maine Chamber and Business Alliance, hardly a tree hugging group, suggests otherwise. Sixty percent believe Maine is a good place to run a business and most said environmental regulations are necessary to preserve a clean environment.

Despite all the books and articles written, despite all the conferences convened, despite all the panel discussions held, most policymakers have yet to grasp the essential difference between sustainable growth and sustainable development, or better yet, sustainable society. Maine is no exception. Business and government here are chasing fewer smokestacks, but they continue to pursue the holy grail of growth. The confusion of priorities is reflected in our vocabulary. The Maine Economic Growth Council issued its 1997 *Measures of Growth* report in January. The misuse of the "growth" word notwithstanding, the document is an intriguing attempt to set quantifiable benchmarks to assess a wide array of economic and social quality-of-life indicators. The report points out that Maine is losing ground in its traditional industries: forestry, fishing, farming. Fun (tourism) and other service sector industries are expanding, but not enough yet to take up the slack. And rural northern Maine is lagging much more than the more populated southern part of the state.

One action urgently needed is to address the severe imbalance of private/public and managed/preserved lands in the state. The *Measures of Growth* report recommends a goal of increasing conservation lands in Maine by 10% or nearly 100,000 acres by the year 2000. Similarly, a new five-year plan by the Gulf of Maine Council calls for expansion by 10% of protected acreage of regionally significant coastal habitat. These are ambitious and worthy short-term goals, especially since there is precious little money for conservation these days. However, there also needs to be a long-term goal of protecting much more land for conservation, even if for purely economic reasons. Numerous recent studies have shown that protected lands and a beautiful natural environment are one of the most important economic draws and quality-of-life factors for attracting clean new businesses and residents.

Citizens have a chance to voice the need for a Maine Woods National Park & Preserve and other big public wildlands at upcoming meetings scheduled by the Governor's Land Acquisition Priorities Advisory Committee. Public comment sessions will be held in Portland on March 17, in Orono on March 18, and in Presque Isle on March 19. The LAP committee is supposed to come up with recommendations on acquisition priorities by fall. (Contact Mark Desmeules, State Planning Office, 38 State House Station, Augusta, ME 04333.)

Citizens also have an opportunity to be heard on how the White Mountain National Forest is managed. The Forest Service is starting the process of revising its ten year plan for the WMNF, including the 50,000 acres of the national forest located in Maine. Many believe the forest is more valuable today as a sanctuary for safeguarding native biodiversity and a place to recreate than for cutting trees or altering habitats for game species. Indeed, about seven million visitors a year now use the campgrounds, picnic areas and trails in the WMNF. You might want to remind the U.S. Forest Service that their own 1995 *Draft Resources Planning Act Program* report projected that three-quarters of the money and jobs generated by the national forests by the year 2000 will be derived from recreation; less than 3% will come from logging.



(Contact WMNF, 231 North Main Street, Rutland, VT 05701.)

Good Work: Just before the holidays three dozen Mainers paid tribute to America's fallen military heroes by laying wreaths at 4,000 tombstones in Arlington National Cemetery. The greens were donated by Morrill Worcester of Harrington.

At the urging of sports groups, last year the Legislature authorized a program called "Hunters for the Hungry." In December hundreds of pounds of meat from illegally killed moose confiscated by the Maine Warden Service were donated to soup kitchens in northern Maine. Legitimate game is also accepted for the program. (Call 1-888-4DEERME.)

Volunteers from the Allagash Alliance have begun restoration of historic relics from the Eagle Lake & West Branch Railroad deep in the Allagash Wilderness Waterway. The railway moved pulpwood for Great Northern Paper in the 1920-30s.

Town and business leaders in Greenville deserve kudos for working to diversify the region's economy by tapping the ecotourism trend. The community's spring "Moosemania" program, a series of activities around the theme that moose are fun, has been named one of the top 100 events in the country for things to do by the American Bus Association.

Tom Bradbury of Cape Porpoise has won the first American Land Conservation Award, with its \$50,000 grant, for his tireless efforts on behalf of the Kennebunkport Conservation Trust.

The Maine Wilderness Watershed Trust has brokered a deal between S.D. Warren (Sappi) and the U.S. Forest Service. Warren has sold development rights on 6,750 acres under the Forest Legacy Program. With this the land trust has secured protection from most development on virtually the entire 10,500 acre watershed of Pierce Pond and surrounding lakes.

Congress has appropriated \$400,000 to start up the new Aroostook National Wildlife Refuge at the former Loring Air Force Base. Another \$600,000 was earmarked to continue restoration of carriage roads in Acadia National Park. Lake Umbagog National Wildlife Refuge on the Maine-New Hampshire border has added 200 more acres bringing the total protected area there to 7,850 acres.

The Fin & Feather Club of Millinocket has won the elimination of day use gate fees for Maine residents in the Bowater/Great Northern West Branch region. The tradeoff: the Club had to drop its opposition to relicensing of the company's dams.

Motorheads: My dad once told me of a trip he made a lifetime ago to the heart of the Maine Woods. He got off the train at Norcross with an uncle from Millinocket who guided. They crossed the ice to the far end of South Twin Lake to run trap lines for several



days. Today most people will not go into the forest without a motor. Snowmobiling, for instance, has become a huge business in Maine, worth \$226 million a year. Inevitably as it has grown snowmobiling has attracted some cowboys who think drinking and speeding are part of the sport. The result was a record number of accidents, more than 180 serious injuries, and a dozen deaths last winter. Now communities, snowmobile clubs and wildlife wardens are teaming up to enforce tough speeding and OUI rules.

There may be more motorized ski lifts in Maine soon, too. Appalachian Trail advocates are buckling to political pressure applied by Don Breen, owner of Saddleback Ski Area, to drastically scale back their expectations for a wide AT corridor along the mountain ridge. After a decade of on again-off again negotiations the Appalachian Trail Conference and National Park Service are willing to allow more development in a pristine bowl on the mountain in exchange for preservation of the alpine zone. A new environmental assessment is being prepared for public comment this year. In the meantime, contact ATC, PO Box 807, Harpers Ferry, WV 25425.

The same sort of yahoos who abuse snowmobiles have been misusing personal watercraft better known as jet skis, in the summertime. The situation has become so troublesome that a Great Ponds Task Force has proposed banning the machines from waters in LURC jurisdiction. In the rest of the state they would be illegal on lakes under 200 acres.

Scents & Sensibility: A Maine warden service supervisor who urinated on two recruits during training last summer will not face criminal charges, but administrative sanctions are still possible. The state Attorney General's office concluded it was not worth bringing criminal action. However, the unnamed fish and wildlife warden may be spanked for his impropriety.

For the first time DNA evidence has been used in a poaching trial in Maine. The Dept. of Fish & Wildlife brought a federal DNA forensic expert from Oregon to testify in a case against Allen Sockabasin, a former Passamaquoddy governor who bagged a moose near the boundary of tribal land in eastern Maine. The defendant readily agreed that DNA from the scene matched that from the moose meat in his freezer. However, he maintained the bullwinkle was shot legitimately on tribal land. The jury decided the state could not prove otherwise and acquitted. In the future the state will be able to bring in its own DNA expert, since funding has just been approved for a new wildlife DNA testing lab at the University of Maine.

Western Maine businesses are more interested in live than dead moose. A local effort to stop the state from expanding the annual moose hunt to that part of the state has been rebuffed. Bethel area business people say the hunt will conflict with their efforts to promote autumn moose watching. Even a last minute proposal to exclude the immediate Bethel area from the hunting zone was rejected.

In a lengthy story in December *New York Times* science writer William Stevens explored the national significance of the fate of the Atlantic salmon here: "Whether the 'aboriginal' salmon has disappeared or not is at the center of a political storm in Maine, where the Federal Government proposes to list what its biologists say is 'the last known wild remnant of U.S. Atlantic salmon' as officially threatened under the Endangered Species Act. State officials, arguing that aboriginal salmon are no longer genetically identifiable, vehemently oppose the listing." Saying the state cannot afford the cost, the King Administration has also nixed a plan to hire a part-time biologist to help restore the struggling salmon run in the Kennebec River. (Contact RESTORE, PO Box 1099, Concord, MA 01742.)

Several paper companies and the National Audubon Society are forming a Maine IBA Committee. That stands for Important Bird Areas. Bowater-Great Northern, Seven Islands Land Company and Champion International are involved. (Contact National Audubon, PO Box 524, Dover-Foxcroft, ME 04426.)

One wag has suggested initiating an IWA Program. Important Wolf Areas would be identified



and permanently protected for their wilderness values. (Contact Gov. Angus King, 1 State House Station, Augusta, ME 04333.)

Former state representative Paul Jacques, long the best friend the hunting/fishing community had in the Legislature, has started lobbying for the Sportsman's Alliance of Maine. Jacques, a high ranking Democrat who was forced out by legislative term limits, will join Republican activist and SAM Executive Director George Smith at the State House. Between the two of them, they will practically own both parties in the Legislature on fish and wildlife issues. The dynamic duo also team-host a television show on outdoor politics called "Wildfire." These symbiotic efforts may turn tense since both Jacques and Smith are considered leading candidates to replace Fish & Wildlife Commissioner Bucky Owen when he leaves that post this year.

Money seems to dominate a lot of other wildlife news lately. Income projections by the Maine Department of Inland Fisheries & Wildlife have been off by about a million dollars for two years in a row and members of the legislative Appropriations Committee are not happy campers. Some are calling for the early beheading of Commissioner Owen. The department

proposes to increase deer, moose and bear hunting license fees and up the cost of boat and snowmobile registrations. The Sportsman's Alliance of Maine objects to simply hitting up the "same loyal customers." The Maine Professional Guides Assn. wants the department to expand the customer base. The Legislature wants more spending cuts. No one asked the wildlife for their thoughts.

The Federal Energy Regulatory Commission (FERC) has ruled against the owners of the Edwards Dam on the Kennebec River who wanted to start the relicensing process from scratch. At the same time, the National Marine Fisheries Service has recommended that the dam be removed to restore access to 15 miles of historic spawning habitat for the shortnosed sturgeon, a federally listed endangered species. FERC has determined that first-cut cost estimates for dam removal might have been biased and too high. The agency has ordered new estimates. (Contact Kennebec Coalition, 271 State Street, Augusta, ME 04330.)

The first million bucks of Maine Outdoor Heritage Fund money has been disbursed. Capitalized by sales of special lottery tickets, the MOHF was the brainchild of George Smith of the Sportsman's Alliance of Maine. Maine Audubon Society undertook a petition drive in 1995 that led to the creation of the MOHF. Thirty-two conservation projects proposed by nonprofits and public agencies have received from \$2,000 to \$100,000. Deadline for the next round to handouts is mid February. (Contact MOHF, 67 Leighton Road, Pownal, ME 04069.)

A new \$175,000 Maine Conservation Campaign will produce two dozen television segments and 12 half-hour TV programs over the coming year "aimed at raising public awareness and involvement in wildlife conservation and outdoor recreation." Funding is from establishment sources, so don't expect any bold news or views.

Dr. John Hagan is undertaking a \$280,000 project



Extirpated Species Stamps designed by Jon Luoma.

to try out his shifting mosaic model of forest management. Bowater and S.D. Warren (Sappi) lands are being used. The shifting mosaic has been criticized by wildlands advocates for not providing biologically important old-growth forest and for being a rationalization of industrial forestry.

If Maine is going to sanction preservation of industrial wildlife, perhaps we should take a cue from New Hampshire. The town of Northfield has passed an official resolution designating an Artificial Wildlife Preserve to protect its endangered population of plastic pink flamingos. It seems that someone harvested the local flock of flamingos from a wetland along Interstate 93. Now it is illegal to capture artificial wildlife in the preserve without an artificial trapping permit. No word yet on whether the gene pool of the flock has been contaminated by introduction of PVC birds.

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

Massive Logging Project Proposed for WMNF

by David Carle

The White Mountain National Forest is one of New England's finest natural jewels. Yet the U.S. Forest Service would rather log the forest than protect it. The latest example of this is the proposed Kearsarge North Timber Sale in the towns of Bartlett, Chatham, and Jackson, NH. This sale could strip 6.8 million board-feet of timber from a 4,700-acre area. It would include massive clearcutting and road building. And to add insult to injury, the sale would lose vast amounts of money.

The Kearsarge North Timber Sale would devastate this scenic, wild area north of Kearsarge Mountain, which was proposed for wilderness designation during the 1970s.

There is significant opposition to the proposed Kearsarge North Timber Sale, led by the regional preservation organization, RESTORE: The North Woods and a number of abutters to the project. According to the Forest Service, over 150 people of sent in comments, the vast majority opposing the logging. Despite the opposition, the Forest Service is moving ahead with plans to log the area.

The Kearsarge North area holds a number of unique characteristics including rare old growth groves. One area in particular, near Shingle Pond, contains a 100-acre grove of old-growth hemlock and northern hardwoods—possibly the largest stand of old-growth hemlock on the WMNF. One of the Forest Service's proposals to thin "over-mature" trees in and near this grove, making the stand even-aged. According to Mary Byrd Davis

(PhD), editor of *Eastern Old-Growth Forests: Prospects for Rediscovery and Recovery* (Washington, DC: Island Press, 1996), "thinning would produce even-aged stands—the antithesis of old growth." This is an area that should be considered for wilderness protection, not industrial logging.

The Forest Service claims that building roads and clearcutting the forest will help wildlife. The Forest Service even claims that "research has shown edge habitat has not had a negative effect on wildlife populations in the WMNF." Animals such as raccoons, skunks, blue jays, and crows thrive in edge habitat while species such as turtles and neotropical migrant birds including Scarlet Tanagers and Black-throated Blue warblers are nega-

tively impacted by these edge species. Apparently, the WMNF is the only place in the world where interior dependent wildlife are not negatively impacted by edge habitat species. The Forest Service failed to provide any references to document their claim.

The proposed Kearsarge North Timber Sale will also lose taxpayers money. A recent study by the U.S. General Accounting Office showed that the WMNF logging program lost an average of \$1 million per year from 1992-1994. The WMNF projects another \$1 million loss in its timber program this year. If the Kearsarge North sale is allowed to proceed, it could cost taxpayers over \$340,000. Americans would be subsidizing the destruction of their own forest!

At one of the Forest Service public meetings about the proposed Kearsarge North Timber Sale, an agency biostitute clearly explained the way the Forest Service does business. She said that the purpose of the Forest Service is to log, graze, and mine the national forests. Within these activities they then manage for wildlife and recreation. If the people want a different kind of management, don't look to the Forest Service.

The White Mountain National Park—it does have a nice ring to it.

David Carle is Associate Executive Director of RESTORE: The North Woods. He can be contacted at: RESTORE, POB 1099, Concord, MA 01742. Tel. 508-287-0320.



A whole-tree clearcut in the Livermore Timber sale in the White Mountain National Forest. Lose money and degrade a forest ecosystem—it's the American way. Photo © David Carle.

Energy Resources Under Scrutiny in Maine

Regulators Consider Abandoning CMP's Pro-Conservation Rate Structure

by Pamela Prodan

Kenetech Appeal Rescheduled

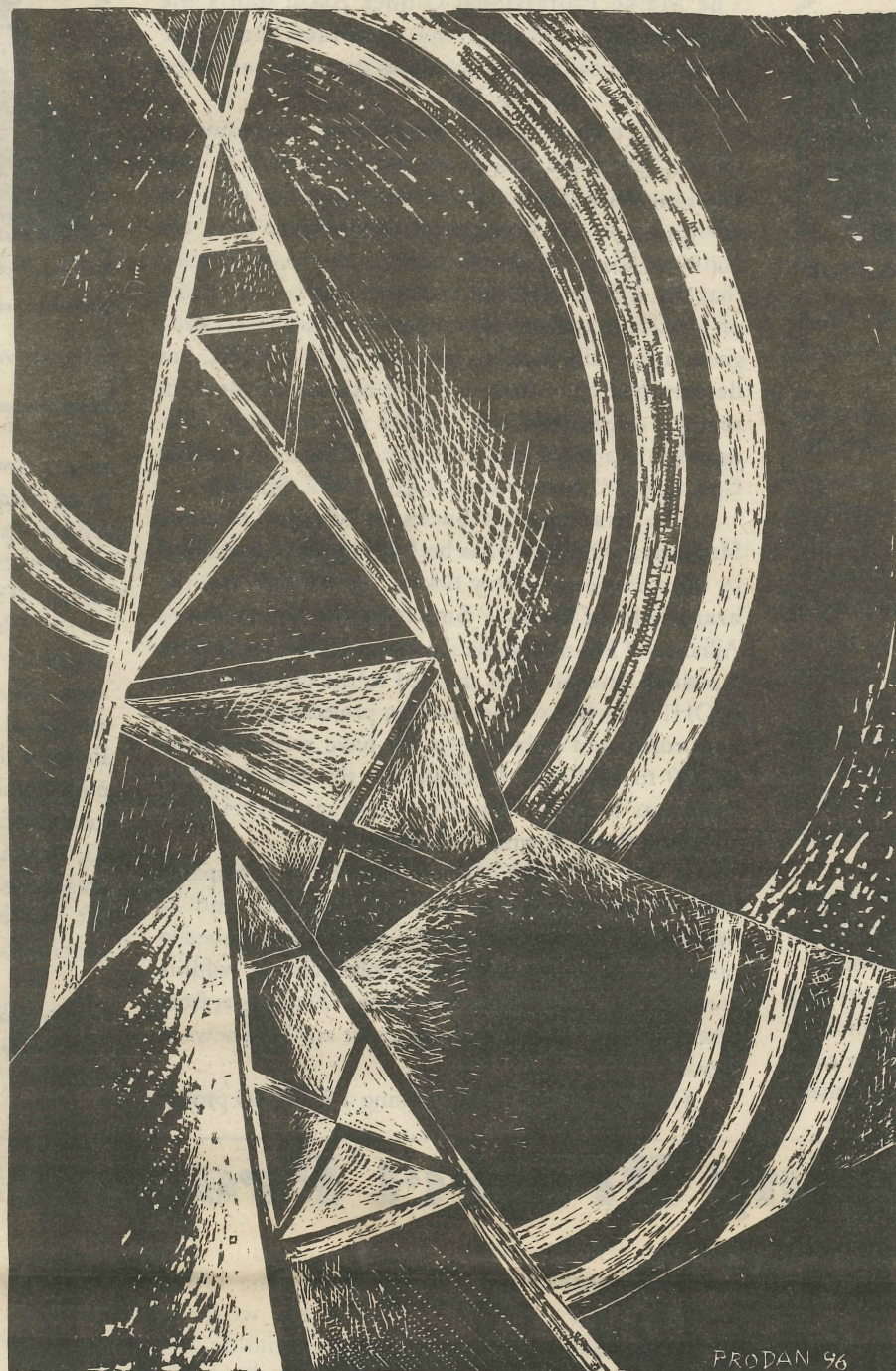
After three attempts to schedule Friends of the Boundary Mountains' (FBM) appeal of Kenetech Windpower's site permit, the Maine Department of Environmental Protection (DEP) now has set a date of February 26—over a year after the appeal was filed. The Board of Environmental Protection will rule on Kenetech's financial and technical capacity as well as bird impacts from the project. Last summer, Kenetech claimed that the appeal could not go forward until Kenetech either sells the Boundary Mountains project or wraps up its bankruptcy proceedings. However, FBM and the DEP believe that the permit itself is not a property interest in the bankruptcy sense, and even if it were, the state can decide the appeal under its regulatory power.

Although DEP has not issued a draft order yet, DEP staff told me that DEP agrees with Friends of the Boundary Mountains that Kenetech does not have the financial capacity required to hold the permit. On the avian issue, FBM's expert witness, Colby College professor Herb Wilson, an ornithologist who used data from Kenetech's own avian study, submitted written testimony estimating that nearly 45,000 songbirds would be at risk of encountering a turbine each fall during migration season on the one ridgeline Kenetech studied. Dozens of similar ridgelines exist throughout the project area. The Department of Inland Fisheries and Wildlife agrees that thousands of birds would encounter turbines, but so far has not said outright that it opposes the project.

Maine Project Priced at \$25,000

At least two developers, including EnergyWorks, a joint venture created by the industry giant, Bechtel, have expressed interest in Kenetech's Maine project and contacted the Maine Land Use Regulation Commission in past months. In December, Bechtel decided not to buy the project. In bankruptcy papers filed last summer, Kenetech officials estimated the value of the Maine project at \$25,000. This was a much lower figure than given to other, smaller, Kenetech projects. For example, Kenetech valued a project in Wyoming at \$100,000. In December, a company called SeaWest bought the Wyoming project for a total of \$3.5 Million, the last \$400,000 to be paid if the project is ever built out above 68 MW. The Boundary Mountains project is 210 MW.

To date, there has been no activity on Kenetech's LURC final development plan by Kenetech, but LURC Director John Williams sent a letter to Kenetech in January reminding the company of its February 28 deadline for filing a final development plan or a request for a six month time extension. Williams indi-



PRODAN 96

cated a demonstration of financial capacity would have to be submitted with any request for an extension.

Restructuring Unfolds

After several Ratepayer Roundtable meetings, a coalition of consumer and environmental groups have developed a list of requirements that they think are needed in order for utility deregulation to proceed. I participated in discussions and supported recommendations that would protect consumers and tend to favor smaller, decentralized energy projects, including:

- customer disclosure of price and source of generation;
- net metering for residential renewable energy installations;
- distributing utility must pursue demand side management or distributed generation if either is a less costly alternative than building additional transmission capacity;
- renewable purchase requirement of small-scale, sustainably managed renewables by all power providers;
- promotion of distributed renewables such as rooftop solar panels.

Unfortunately, not all these suggestions were ultimately adopted by the whole Roundtable, which included participants representing industrial consumers and PURPA-scale independent energy producers (biomass and hydro plants up to 80 MW capacity). Environmental groups were ready to

agree, but the industrial interests and independent producers especially resisted incorporating any language that would condition support for renewables upon the sustainable management of the resources used.

One proposal developed by a renewables subcommittee would have defined renewable as:

- all existing facilities defined under PURPA standards, with the understanding that, to retain renewable status, projects must move toward a definition of sustainability;
- new renewable resource facilities that meet certain definitions of sustainability (as yet undefined).

The Public Advocate is transforming the final Roundtable document to legislative format which will be presented as an alternative to other legislative initiatives drafted by one or more utilities and by the Maine Public Utilities Commission.

Maine Yankee and Other Nuclear Uncertainties

With all the problems at nuclear plants in Maine, Connecticut and Point Lepreau, New Brunswick, Jim Conner of the Maine State Planning Office told me that he had expected that one or more of Maine's idle biomass plants might be started up. The plants' contracts with utilities were bought out when the price for other sources of power dropped in recent years.

However, Conner said that New England utilities that lost their nuclear resources opted to purchase replacement power from Hydro-Quebec. It's an open question whether the idle biomass plants will operate before Canadian natural gas, likely to be a cheaper, though not cleaner burning, energy source, becomes available to the region.

Fiber Farming in Maine

Ted Johnston, formerly with the Maine Forest Products Council, is now a lobbyist for the Industrial Energy Consumers Group. The IECG, which focuses on electric energy issues, is a trade group dominated by large forest products manufacturers such as paper companies. Johnston has been brought on board to do outreach to sawmills and smaller users. Johnston would like to see abandoned potato farms in Aroostook County planted to poplar to provide fiber for pulp and biomass. There is also a good market now for poplar veneer and saw logs in Quebec. Johnston maintains that monoculture poplar will not create a problem with disease and pests because it is a fast-growing crop. Potato beetles have ignored that theory, though.

Natural Gas Pipeline Opponents Organize

The No New Corridors Citizens Coalition has proposed an alternate route to the gas pipeline route now proposed by Maritimes and Northeast of Boston. No New Corridors' route would require little if any taking of private property, unlike the 40 mile swath of new right-of-way Maritimes has proposed from Lisbon to Whitefield. The citizens group's alternative uses existing utility rights of way and is two miles shorter than the one proposed by the Boston-based developers. Central Maine communities are upset that the pipeline route diverges from Central Maine Power (CMP) utility rights-of-way to cut through woods, wetlands, farms and next to homes. The company had promised to use existing rights-of-way when it first proposed building the pipeline.

An engineer with Maritimes and Northeast told attorney Polly Reeves, statewide coordinator of No New Corridors, that the company had walked parts of the citizens' proposed route and found it unacceptable. However, according to a January 16 story in *Capital Weekly*, an Augusta community newspaper, spokesmen for the company admitted that nobody from the company had ever examined the company's own route on the ground. According to *Capital Weekly*, a Maritimes representative even characterized its own proposed route as "a line drawn on a map by an engineer."

Complaints about Maritime's refusal to be forthcoming with information are common. Employees in Augusta are not allowed to speak to the press. Local State Representative Scott Cowger told *Capital Weekly* that the company had not returned his calls made two weeks previously. Last year State Senator Sharon Treat told me that the company offered to meet with her, yet during the meeting never even told her that the pipeline was proposed to go

through her legislative district. For more information, contact: No New Corridors, c/o Polly Reeves, RFD 2 Box 427, Gardiner, ME 04345.

Liability Sought To Be Restored

Representative Scott Cowger, a freshman Democrat from Hallowell, is introducing a bill to repeal a law passed last session that reduces liability for gas pipeline owners in case of an explosion or fire from a pipeline. The new law shifts the burden of proving negligence to the injured party. Before, the company would have had to prove that it was not negligent. Apparently the gas industry initiated the change in anticipation of building new pipelines through Maine.

Two Pipelines Proposed

The Portland Natural Gas Transmission System (a pipeline proposed to pass through western Maine, New Hampshire and Vermont) and the Maritimes and Northeast pipeline directly affect 80 Maine municipalities, not including lateral lines. Central Maine Power Company has bought an equity interest in the Maritimes and Northeast pipeline in exchange for the use of its power line rights-of-way. CMP has applied to the Maine Public Utilities Commission to install and maintain gas lines in 42 communities, which would require building smaller lines from either the main large high volume pipeline or the lateral lines the pipeline company is planning to construct to serve the large paper mills. Pipeline companies cannot build local distribution lines but can sell to large industrial customers.

Portland Transmission and Maritimes and Northeast have remarkably similar public relations strategies. Last year when I called the Portland Transmission office they asked if I was from the media and so they could direct my call accordingly. I was calling as a member of my town conservation commission, so I never found out how they treat the media. Just like Maritimes and Northeast, Portland Transmission originally promised it would go on existing rights-of-way, but now proposes to cut through the southeast corner of the Nash Stream State Forest in New Hampshire. The federal Natural Gas Act appears to preempt any state and

local attempts to impose siting and design requirements on interstate natural gas pipelines, although FERC is supposed to take those views into account before issuing a certificate of public convenience and necessity.

Environmental Impact Statements are expected to be issued next year for both pipelines. No mainstream group has yet come out in opposition to either project. Appalachian Mountain Club's Tom Steinbach is concerned about local environmental impacts since the Maritimes and Northeast line runs through the Down East Lakes Wildlands and the Portland pipeline crosses the Appalachian Trail. Conrad Schneider of the Natural Resources Council of Maine agrees with my concern that natural gas may not replace, but could instead add to, other types of energy consumption in Maine. But apparently both groups endorse importing natural gas, a fossil fuel, which they say is a way of improving air quality. No one seems to be asking whether both pipelines are needed.

Stump at Garden Party

In January, Bangor Hydro-Electric Company President Robert Briggs told legislators on the Energy and Utilities Committee that he is the stump at the garden party for vocally opposing the Maritimes and Northeast Pipeline. Briggs is concerned about losing industrial customers to the gas pipeline. Bangor Hydro has been banking on building load to boost its sagging profits, but expected growth has not materialized and sales are flat. The company says it may have to cut dividends to shareholders and ask regulators for a rate increase soon. Bangor Hydro now has a rate for electric heat of five cents per kilowatt hour, claiming it still can make a profit. It is also promoting electric heat to manufactured home builders. Electric heat has long been criticized as one of the most inefficient and wasteful uses of electricity ever invented.

PUC May Abandon Inverted Block Rates

The Maine Public Utilities Commission is investigating four issues dealing with Central Maine Power Company's rate design. One issue is



Maine ΔWood-Burning and ●●Hydroelectric Facilities
Source: Maine State Planning Office, 1991

whether it would be beneficial to change CMP's rate design with respect to so called declining block rates. The present design, using inverted block rates, reflects the reality that there is only a finite plant capacity for producing electrical energy, and users over a certain amount create the demand for construction of new facilities. Accordingly those users should pay for demanding that extra capacity. With inverted block rates, above a certain usage level, the rate per kilowatt hour goes up. With declining block rates, on the other hand, the more electricity consumed, the lower the rates. Some argue that inverted block rates are counter intuitive by using the analogy that it costs less per pound if you buy a bigger box of cookies, but a better analogy would be that of a cow—she produces milk easily up to a point, but beyond that point, to increase production, even by a small amount, you need to buy another cow.

Changing from the inverted block rate structure has serious consequences for energy planning. If energy consumption is promoted through rates, new plants will need to be built and environmental impacts from energy generation will increase. The inverted block rate structure sends the signal that it is appropriate to conserve our limited natural resources and use only what we need.

Pamela Prodan Coordinates the Renewable Energy Assistance Project (REAP) of the Northern Appalachian Restoration Project.

NB Nuc Plant Leaking Heavy Water

The Point Lepreau, New Brunswick nuclear power plant, which lies within 30 miles of the Maine border, was shut down in mid-January due to a leak of radioactive heavy water somewhere in the reactor. The leak had been increasing in size for two weeks prior to shutdown.

Recently the Atomic Energy Control Board of Canada warned that there is no "culture of safety" at the plant.

This 13-year old nuc plant has had a long history of problems, including: corrosion in pipes that carry radioactive heavy water in the reactor core (a problem that apparently plagues other Canadian nuc plants with the same design), loose screws and pieces of wood floating somewhere in the reactor. The wood and 30 metal screws were lost after a wooden hatch cover was accidentally sucked into a pump in the reactor. Some of the trap-door material was recovered, but not all of it.

New Democratic Party Leader Elizabeth Weir disputed claims from the power plant that it was "not a crisis." "The question is, are we leading up to situations where we're dealing with the China syndrome?" she asked.

NH Legislature Ponders Ban On Bear Baiting & Hounding

The New Hampshire Senate has introduced legislation to protect black bears from cruel trophy hunting practices. Senators Burt Cohen and Katherine Wheeler have introduced SB 52 to ban the use of dogs to hunt bears, and SB 57 to ban the use of bait to hunt bears. These bills were heard on January 30.

Trophy hunters are currently allowed to litter forests with piles of meat and pastries to lure bears within point-blank range. They are also allowed to unleash packs of radio-collared hounds to chase a bear into a tree, and then follow the radio signal to the base of the tree and shoot the trapped bear off the tree branch.

Please tell your elected officials that SB 52 and SB 57 would not end bear hunting, but would simply end these two disgusting practices. Because these practices are cruel, unsporting, and damaging to the environment, voters in Colorado, Oregon, Massachusetts, and Washington have banned them in the past few years.

Please contact your State Senator and State Representative immediately, and ask them to support SB 52 and SB 57. Write them at: The Honorable _____, State Capital, Concord, NH 03301. Or call the Legislative switchboard to be connected to their offices: 603-271-1110.

If you do not know who your Senator or Representative are, or if you would like to get more involved, please call Ginny Mead at The Fund for Animals' New Hampshire office, 603-788-3750.

Sable Island Natural Gas Update

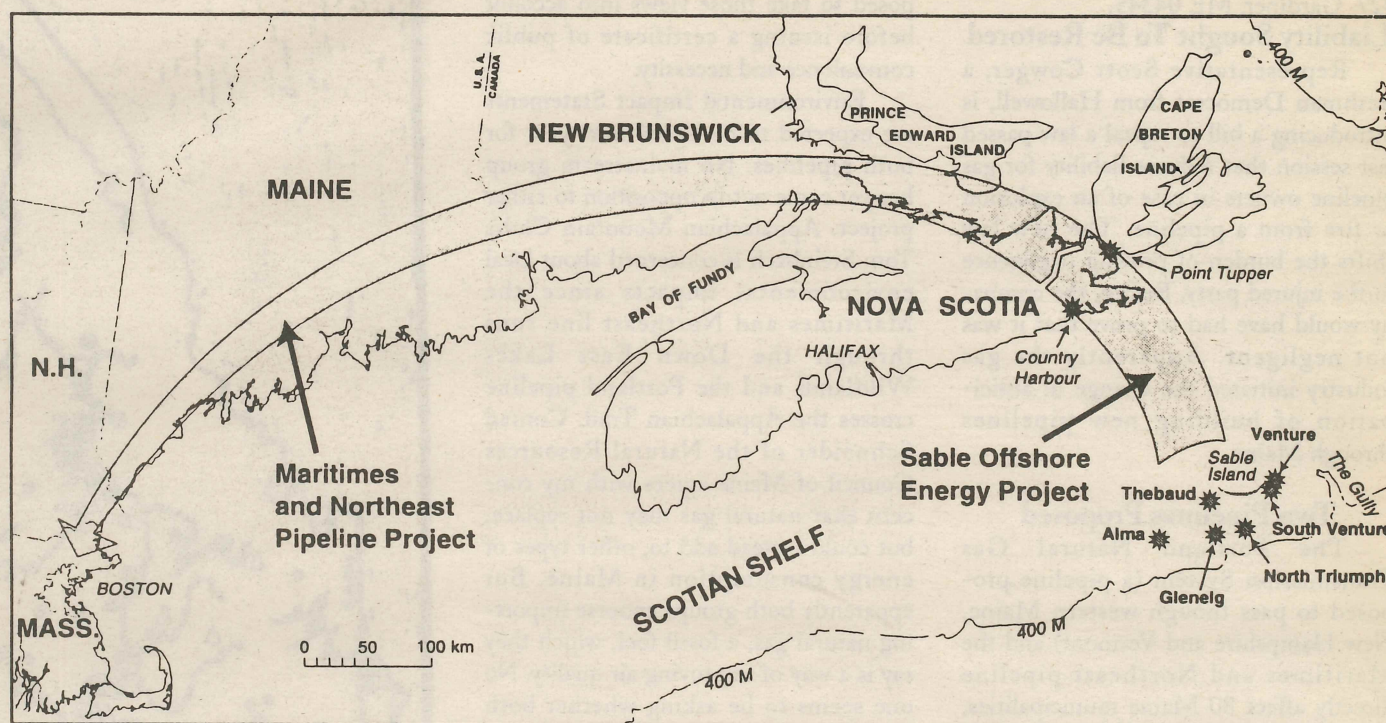
by David Orton

In the Winter Solstice 1996 issue of *The Northern Forest Forum*, I outlined a case against the Sable Island natural gas project. The proposal calls for the extraction and transmission during 25 years of over three trillion cubic feet of gas from six gas fields using approximately 30 production wells, situated in the vicinity of Sable Island, off the coast of Nova Scotia. This natural gas, if exploitation goes ahead, is destined mainly for the Northeastern United States via a gas pipeline through Nova Scotia, New Brunswick, Maine, New Hampshire, and terminating at Dracut near Boston.

This update on recent developments is written to again urge the intervention of readers, particularly on the US side of the border, to stop this massive destructive project by, for example: mobilizing citizens along the US pipeline route; intervening in a creative, Earth responsible manner in US regulatory hearings (Federal Energy Regulatory Commission) concerning the placement of the pipeline; and pressuring industrial and utilities interests not to buy Sable gas, because of its ecological and social costs.

American Gas Consumers

Maritimes & Northeast Pipeline (a consortium of Westcoast Energy Inc., PanEnergy Corporation, and Mobil Oil Canada Properties), have listed the following companies in Volume 2 of their Application for a "Certificate of Public Convenience and Necessity", as having signed "Precedent Agreements" to buy natural gas. Mobil has reserved for itself a very large volume of this gas. Other companies listed are Boston Edison Company, Trigen-Boston Energy, Trigen-Baltimore Energy, Valley Gas, Essex County Gas Co., PanEnergy Trading, Champion International, Georgia-Pacific Corp., Eastern Fine Paper, Lincoln Pulp & Paper, Great Northern Paper, Chinnet Company, Kimberly-Clark, S.D. Warren Company, PanEnergy Power, and James River Paper Co. To rub more salt into Canadian nationalist wounds, the same Application informs us that "Gas



Control" for the Canadian section of the pipeline in Nova Scotia and New Brunswick will be located in PanEnergy offices in Boston, with a back up computer facility in Parsippany, New Jersey!

Formal Hearings

In April 1997, highly structured court-like "formal" public hearings over several weeks, will be convened in Nova Scotia (Halifax) and New Brunswick (Fredericton), by the Joint Public Review Panel. This Panel 'reports' to the federal National Energy Board (NEB), which itself has three members detailed to consider the project on the Joint Review Panel. This is not, apparently, seen as an incestuous arrangement.

The North Shore Anti-Pipeline Group, the Green Web, and a number of rural residents who have come together in loose groupings to oppose the natural gas pipeline and the Sable gas project, have opposed taking part in the formal hearings as scheduled. Such hearings have been embraced by mainstream environmental groups, (aided of course by intervener funding from the federal government), like the Conservation Council of New Brunswick, the Halifax-based Ecology Action Centre, and the Clean Nova Scotia Foundation. All these organizations have been granted intervener standing. The World Wildlife Fund is also listed as an intervener.

The reason for boycotting the formal hearings is a disbelief that the regulatory process, as established, will allow the Sable gas project to be stopped. The whole process and its context reflects the world view of the oil and gas industry. With its extended urban focus, it can only absorb and neutralize the energies of rural activists. Speakers from the Anti-Pipeline Group and Green Web at informal scoping meetings held by the Panel, have said the formal hearings are a sham. The hearings cannot protect the people who are most at risk along the pipeline. Also, the marine life forms off Sable Island which will be most affected by this huge gas project, and the terrestrial life forms along the pipeline route, have "no standing" in the scheduled formal hearings. In the real world, the go-ahead for the Sable gas project is assumed by business, politi-

cians and media commentators. Yet we are supposed to accept that the life or death of this project is in the hands of an appointed five-person, "one regulator stop" Panel.

As of January 17, 1997, an amazing 111 individuals and organizations, have registered as interveners for the formal hearings. The cut-off date for registering as a formal intervener has now passed. Based only on obvious self-identification of names on the interveners' list, as well as there being many lawyers, there are 37 oil and gas industry organizations and pipeline companies, as well as government departments dealing with the industry; there are 15 American corporations or government agencies, e.g. Georgia-Pacific Corporation and Maine Public Utilities Commission; seven labour organizations; eight environmental groups or individuals, defining environmental in an expansive manner; four fishers' organizations; and two native organizations.

Other organizations not categorized as above, but who are taking part, have in common an interest in benefiting economically from the Sable gas project; or they are Canadian federal or provincial government agencies with some jurisdictional interest.

There will also be two one-day informal sessions, which will be held by the Joint Review Panel, in Moncton (NB) and Antigonish (NS) in early April. Participation in these hearings is considered of a "lower order" by the National Energy Board. They call information gathered at the informal hearings as "Letters of Comment". Rural anti-pipeline activists believe these informal hearings are organized to appease the rural constituencies. But the real action for the natural gas promoters is in the formal urban-based hearings, governed by extremely complex rules of procedure.

Opposition Building

Opposition has been building, particularly in rural Nova Scotia. There is also growing interest in the loosely defined environmental community, with a range of positions being put forth from outright opposition to support for the project. (For example, at a press conference called by Maritimes & Northeast Pipeline in Bangor, Maine in

November 1996, the Natural Resources Council of Maine declared its support for the Sable gas project and the pipeline through Maine!) The general trend in rural areas of Nova Scotia, seems to be that with increasing knowledge of this project comes increasing public opposition. (There are approximately 17 volumes of publicly available company documents justifying the offshore and onshore natural gas project.)

Several rural community meetings have been organized to discuss the pipeline, which company officials say will affect close to 4,000 landowners in NS and NB. The Pictou County Council has been persuaded to hold a special meeting on January 22, "To receive public input on the North Shore Pipeline Project and to consider Council's position with regard to the project." Given the media and business/political promotion of the Sable gas project, the holding of this special council meeting has to be considered significant.

Raising the public discussion and bringing out the complexities of the Sable Island gas project, is the focus of organizing work for the North Shore Anti-Pipeline Group and the Green Web. Getting tied up in the process set up by the National Energy Board, essentially a front for the oil and gas industry, can only lead to defeat. It will ultimately be a political decision, whether or not this project goes ahead.

To contact the North Shore Anti-Pipeline Group write to, Citizens Against the Sable Island Pipeline, POB 874, New Glasgow, Nova Scotia, Canada B2H 5K7.

To contact David Orton or the Green Web, write R.R.#3, Saltsprings, Pictou County, Nova Scotia, Canada BOK 1P0. E-mail address: greenweb@fox.nstn.ca

To Solve Greenhouse Effect Engineer Says Bomb Earth With 200-MPH Trees

A student working on a doctorate in mechanical engineering at the Massachusetts Institute of Technology has figured out the solution to the greenhouse effect—bomb the Earth with trees!

Moshe Alamaro wants to replace the forests that covered the Earth prior to the industrial revolution by using military transport planes to drop seedlings on remote, uninhabited areas. He developed an aerodynamic tree-planting cone constructed of a starchy and biodegradable material that is strong enough to withstand a 200-mph impact with Earth. He believes that electric power companies will pay him with money saved from carbon dioxide tax credits.

Source: *Popular Mechanics*, Jan. 1997



Joint River Commissions Release Draft Connecticut River Corridor Management Plan

From a press release from the Connecticut River Joint Commissions.

In late December the Connecticut River Joint Commissions (CRJC) released their draft Connecticut River Corridor Management Plan. The plan represents four years of effort by the Commissions and their five local river subcommittees. All of the plan's many recommendations are the result of consensus reached among a wide variety of interests.

This exceptional grassroots planning effort stems from the Connecticut River's designation into the NH Rivers Management and Protection Program in 1992, when the Commissions mobilized hundreds of valley residents and local officials to successfully nominate the Connecticut River into the program. This empowered valley citizens to work together to create their own plan to care for the river, tailored to their region's own needs and stretch of the river, in lieu of the NH statewide Comprehensive Shoreland Protection law, which went into effect on other rivers.

While the NH River commission was charged by the NH Legislature with developing this plan, the CRJC elected to delegate this responsibility to local people appointed by their riverfront towns, in order to ensure that the plan would best respond to local concerns. The State of Vermont urged citizens from its riverfront towns to join their New Hampshire counterparts in the planning process. Five local river subcommittees have been at work up and down the river since January 1993 to identify problems, opportunities, and recommendations for a wide array of topics ranging from recreation to water

quality to agriculture, with the active support of the Commissions.

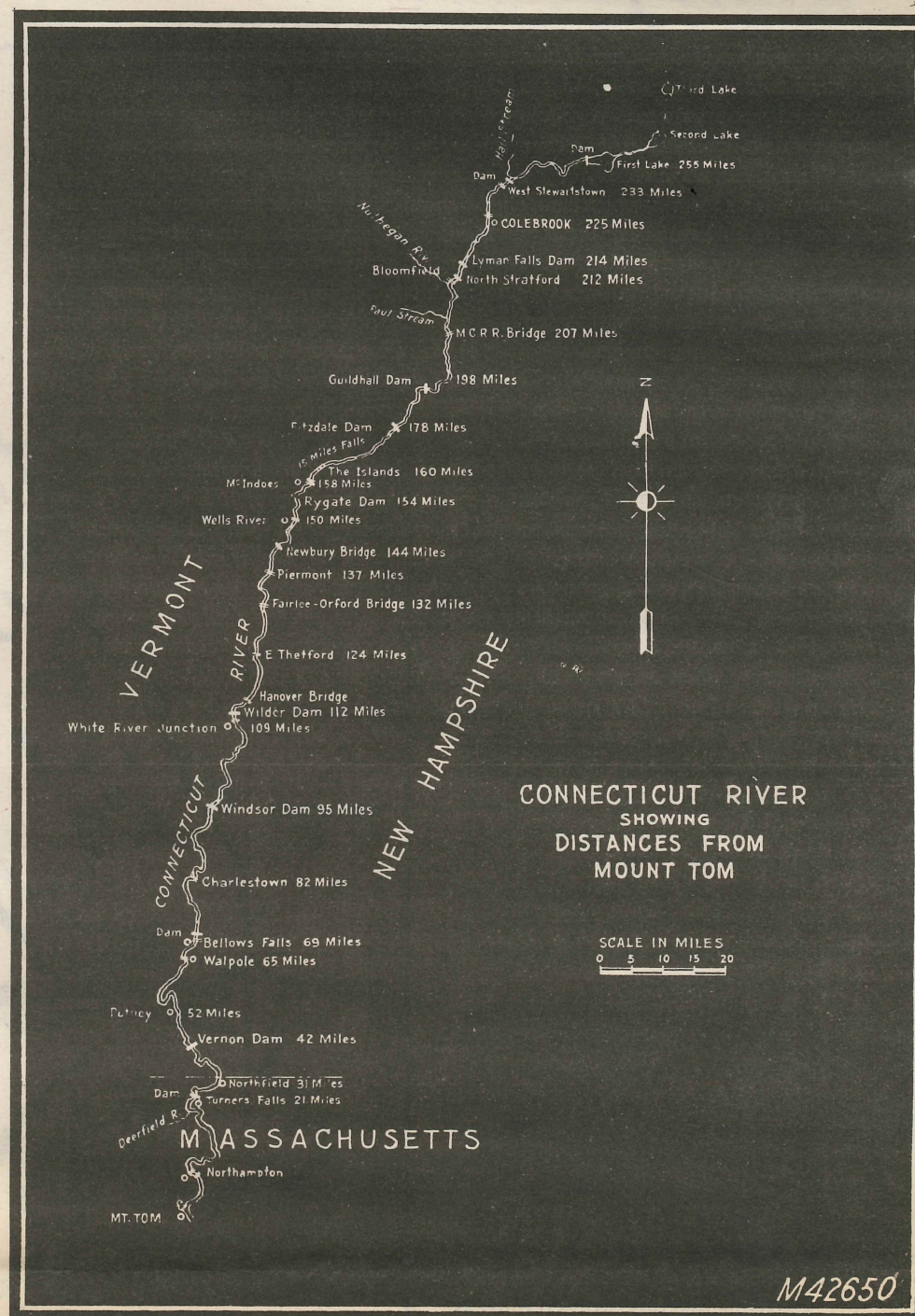
"This is not an agency plan, or something created by bureaucracy from beyond the valley," said Adair Mulligan, CRJC Communications Coordinator, who managed the work of the five local subcommittees. "This plan is the creation of your neighbors."

The draft River Corridor Management plan represents the Commissions' riverwide overview, synthesized from the conclusions of their five local counterparts, with the addition of the Commissions' perspective based on their own years of work within the valley. This riverwide statement is intended to focus the attention of appropriate federal and state agencies on local needs identified by the subcommittees, and to encourage towns to take action to benefit the river and sustain the public value it represents to their citizens.

The plan is an advisory document only, and does not supplant local authority. Any local actions stimulated by the plan will take place through the conventional channels of planning boards or commissions, local public hearings, and town meetings. Publication of the river plan is expected early this spring.

Editor's Note: At the public hearing held on January 27, there was strong public support for strong river corridor protection actions. Below we print a summary of the comments offered by the Connecticut River Watershed Council.

Although the comment period has now passed, if you desire a copy of the plan or further information, contact Adair Mulligan, Communications Coordinator, (603) 795-2104, or Sharon Francis, Executive Director, (603) 826-4800.



Connecticut River Watershed Council Comments on Draft Management Plan Of Connecticut River Joint Commissions

Ed. Note: The following comments summarize lengthier comments submitted to the Connecticut River Joint Commissions at a January 27 public hearing on the Joint Commissions' Draft River Corridor Management Plan. To get the complete comments of the Connecticut River Watershed Council on the Draft, call 603-675-2518.

The Connecticut River Watershed Council (CRWC) applauds the three-year effort of the Joint Commissions and Local River Subcommittees to develop the draft Plan. In particular, the Subcommittees' diligence in defining the special character of their five reaches, identifying their locally significant resources, and describing the importance of the place that embraces their lives and livelihoods is exemplary. In fact and in substance, the Local Subcommittees have given the Joint Commissions and residents of the Valley a grassroots mandate for a strong River Corridor Management Plan.

As our comments discuss in detail, we believe the Plan as presented is incomplete. It presents hopes and desires we all share, but lacks the substantive standards, measures, and policies necessary to protect the values identified by the Local Subcommittees and to fulfill the responsibilities of the NH Rivers Management and Protection Program. The task now is to add the needed specifics to insure the Plan achieves what we all want—a Connecticut River that grows better with age. We offer revised text to define the actions that individuals and communities can take to protect the river.

We urge the Joint Commissions to extend the public review and comment process (which ended on

January 27), and to hold hearings or "listening sessions" in each of the Local Subcommittee regions.

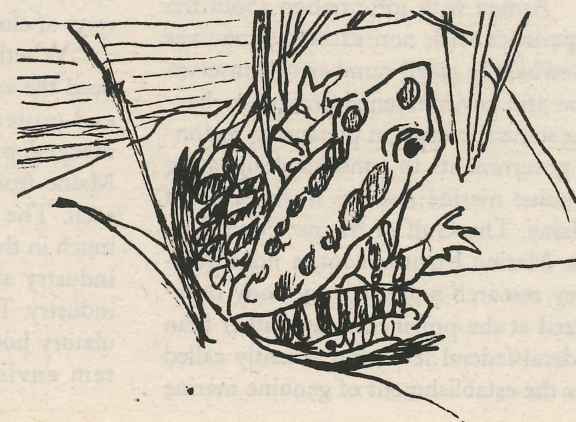
A Summary of Comments Submitted by CRWC:

- Applauds the Local Subcommittees and Joint River Commissions for identifying both the values of the River we want to protect and the actions we can take to protect them.
- Stresses the importance of the Plan created by designation of the Connecticut River under the NH Rivers Management and Protection Program which exempts the Connecticut from significant state protection and places the principal responsibility for protecting the River on the communities and residents of the Valley.
- Points out the need for the Plan to apply equally in Vermont and New Hampshire for the River to be protected.
- Identifies five principal goals presented by the Plan and urges their adoption by all communities: protect the ecological integrity of the River; conserve rural and scenic quality of the Valley; support farming and forestry; maintain the outdoor recreation economy; and explore heritage tourism, achieve river protection and appropriate economic development through bi-state, local action.
- Identifies key river issues not specifically addressed in the Plan: bi-state participation, water quality standards, tributary and wetland protection.
- Urges transformation of the Plan's "opportunities" into statements of action.
- Identifies additional actions needed to ensure

the River is protected, e.g., require proper use and storage of road salt, require developers to have stormwater management plans, maintain development patterns of compact village settlement.

• Challenges several points of view in the Plan, expressing support for the international effort to restore Atlantic salmon to the Connecticut River and explaining why landowners willing to sell land for the Conte Refuge sometimes need and benefit by the legal process of eminent domain.

• Underscores key actions needed to protect the River: bi-state action, minimum standards adopted by every riverfront community, protection of riverside forests and vegetated buffers, appropriate siting of development out of the floodplain, continuation of farming, education of landowners, community leaders and the public about the River and why to protect it, and local commitment and action to protect the River.



Time for Marine Reserves in the Gulf of Maine

by Ron Huber

From the uppermost Bay of Fundy to Cape Cod Bay to Georges Bank, there is no place within the Gulf of Maine off-limits to commercial and recreational fishing. No place where the natural lifecycle of fish and shellfish may take its course unimpeded by human intervention, where natural ecosystems or undisturbed habitats for scientists to use as baselines exist. The "end of nature" has occurred, with a vengeance, in the Gulf of Maine.

The result of this intensive exploitation of the Gulf's fishes and shellfishes has been a steady deterioration of the marine ecology of the region. Georges Bank, the 15,000 square mile submerged plateau separating the Gulf from the Atlantic Ocean, once supported the North Atlantic's greatest population of large predator bony fishes. Under the steady assault of the commercial fishing industry, these fishes, once numbering in the tens of millions, have declined to near "commercial extinction" levels.

Similarly, the marine ecology of the Gulf's nearshore waters has changed, with finfish populations but a shadow of their former abundance.

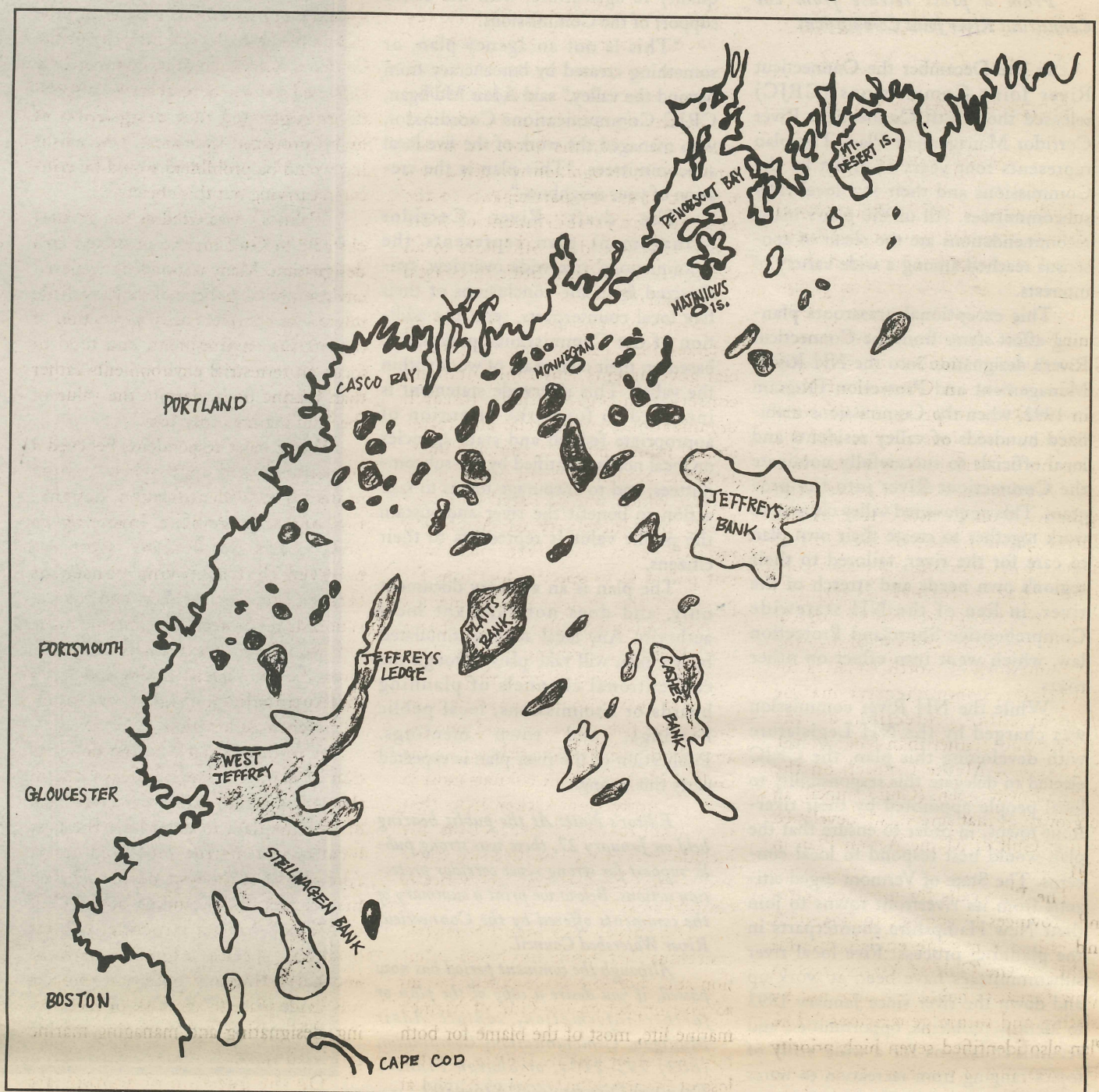
Faced with a collapse of such magnitude, the US and Canadian governments have been forced to shut down commercial fisheries across broad swathes of the Gulf of Maine. The closures, are temporary, however, (and in some cases, seasonal). Should the fishes and shellfishes that filled these area return in exploitable levels, the same sad cycle may begin anew.

Existing marine protected areas have done nothing to stem the tide of depletion. Neither of the Gulf of Maine's two marine protected areas, Stellwagen Bank National Marine Sanctuary and Massachusetts' state-managed Ocean Sanctuaries, are allowed to prohibit or even regulate commercial and recreational fishing anywhere within their boundaries.

But the principles of conservation biology have begun percolating down into the marine sciences. Government decision-makers around the Gulf of Maine are beginning to hear the call for the designation of Non-Extractive Reserves (NERs), geographic locations where the marine ecosystem will be free of extractive human exploitation.

NERs exist around the globe, from Belize to New Zealand to South Africa. Unsurprisingly, managers of these marine refuges note marked increases in fish and shellfish abundance and species diversity, and posit that these areas also serve to replenish nearby areas, through out-migration from refuge to surrounding waters where fishing is allowed.

Armed with information about the experience with non-extractive reserves elsewhere, a small number of conservation and environmental groups are having some successes in pressuring regional governments to consider designating genuine marine reserves in the Gulf of Maine. The Gulf of Maine Council on the Marine Environment, a nonregulatory research and advisory body organized at the provincial/state rather than federal/federal level, has recently called for the establishment of genuine marine



Generalized Submerged Topography of the Western Gulf of Maine. Shaded areas depict major submerged banks and ledges of the western Gulf of Maine. Depths of ledges and banks vary from 50 to 90 meters below sea level; surrounding waters reach 100 to 400 meters deep. Larger banks identified; all banks and ledges are well-known to the commercial fishing industry. Scale: one inch equals 20 miles.

protected areas in the Gulf and may begin nominating candidate sites next year.

In addition, commercial fishing harvest practices are under increasing scrutiny, particularly the otter trawl, arguably the most habitat-destructive and non-selective fishing technology ever devised, yet still the most commonly used fishing gear in the Gulf of Maine.

Conservation and environmental activists achieved a major legislative victory on this issue in Congress this year, however, pushing through amendments to US fishery law that, for the first time, require the designation of 'essential habitat' for commercially sought after species, and a requirement for both industry and its regulators take a hard look at the impacts of fishing practices on these habitats, and come up with ways of eliminating those impacts.

Whether the political will exists to heed the call to reform fishery practices and protect critical areas of our submerged public lands in the Gulf of Maine from exploitation remains to be seen. The political establishment is as much in thrall to the commercial fishing industry as it is to the forest products industry. The major marine fishery regulatory body closely resembles the system envisioned for Maine's forests

under the Compact for Maine's Forests, with industry-dominated Fishery Management Councils calling the shots on fishing practices and harvest quotas. The result of this co-management scheme are well known: empty seas and bankrupt fishing communities.

In his "State of the State" address on January 28, Maine's Governor Angus King unveiled a "Jobs from the Sea" initiative that would, he said, make the Maine Department of Marine Resources "a catalyst for change", including the highly laudable goal of coordinating the region's public and private marine research institutions into a "far flung virtual laboratory stretching from Calais to Kittery."

Coordination of the scattered marine science institutions of the region is sorely needed; but just as the energies of the region's forestry-related scientific community have been bent largely toward refinement of inappropriate forest practices and paper bleaching technologies, unless the goals of marine science are to transform humankind's relation with the wild Gulf from one of maximum exploitation to a more ecologically respectful interaction, the net effect of coordinating Maine's marine sciences community may well be an increase in the rate of "serial commercial extinctions", as the same inappropriate

fishing technologies are merely shifted from overexploited species to those considered "underutilized."

"Jobs from the sea are within our grasp!" King exclaimed, calling the Gulf of Maine "a field as fertile as the plains of the Midwest." The Governor should be mindful that earlier this century, over enthusiastic government boosting of "scientific" monoculture farming turned much of the Midwest into a dust bowl.

In the end, it will be up to informed citizens to bring ecological sanity to the management of the Gulf of Maine, by becoming involved in the drive for non-extractive reserves, and by making sure that reforms in US federal law requiring the designation of essential fish habitat and the evaluation of fishing practices are carried out. While the damage already done to the Gulf of Maine's marine ecosystem is severe, the experience elsewhere around the globe has shown that even badly damaged marine ecosystems can recover, if given the opportunity.

Ron Huber coordinates the Coastal Waters Project of the Northern Appalachian Restoration Project. He can be contacted at: CWP, POB 94, Lincolnville, ME 04849. Tel. 207 789-5310.

Gulf-Wide Survey Shows Broad Support for Marine Protected Areas

Major Culprit in Marine Habitat Loss: Mobile Bottomfishing Gear

by Ron Huber

Following a 1989 international conference attended by over 250 scientists, policy makers, fishing and shipping interests and conservation groups (including Conservation Law Foundation, Nature Conservancy, Massachusetts Audubon Society, and the Conservation Council of New Brunswick), the premiers of New Brunswick and Nova Scotia, and the governors of Maine, New Hampshire and Massachusetts, signed the Agreement on Conservation of the Marine Environment of the Gulf of Maine. A non-binding political accord rather than a formal treaty, the Agreement recognizes the ecological unity of the Gulf, and establishes the first framework in North America for cooperative, comprehensive marine environmental protection at the state/province, rather than federal level. The Gulf of Maine Council on the Marine Environment (Gulf Council) an outgrowth of that agreement, developed its first Gulf of Maine Action Plan in 1991.

The Plan calls for member states and provinces to commit to "maintain and enhance marine environmental quality in the Gulf of Maine, and to allow for sustainable resource use by existing and future generations." The Plan also identified seven high priority objectives, one of which is "To promote the protection, restoration and enhancement of fish and wildlife habitat within the Gulf of Maine region".

To carry out this objective, in 1994 the Gulf Council created a Habitat Committee, which was given a mission to "foster and support an integrated approach to the protection, restoration and enhancement of fish and wildlife habitats and sustainable use of living resources in the Gulf of Maine."

The Committee recently released the results of a survey on the potential of a Marine Protected Areas program

for the Gulf of Maine. The survey shows broad support for the establishment of marine protected areas, although no consensus was reached on the degree of protection to be accorded marine life within the "protected areas". Importantly, recognition was given by a number of survey participants to the need for the establishment of "core areas" that would be off limits to all extractive activities, both in coastal waters and offshore.

Sixty-six individuals, representing federal (US, Canada), state and provincial governments, environmental and conservation organizations, research organizations, commercial and recreational fishing interests, shipping interests, and academia, participated in the survey, which was prepared and analyzed by University of Michigan researcher Sam Brody. Participants were not polled as to specific locations for protected area designation. Contacted in late November, Brody said that a workshop on identifying priority locations would be held in the spring.

The survey found general agreement that fish spawning and nursery areas, both inshore and offshore, are the Gulf of Maine's marine habitats most in need of protection. Other areas that respondents urged protection for include areas of high biodiversity, whale and seabird habitats and "aesthetically pleasing areas".

The survey also found a general consensus that, while landbased pollution and shoreline development has an adverse impact on the Gulf of Maine's marine life, most of the blame for both the decline of marine species and the loss of marine habitat should be laid at the feet of the commercial fishing industry. Mobile bottom fishing technology, particularly the otter trawl, was cited as the primary cause of marine habitat destruction. (Otter trawling is the most-practiced method of commercial groundfishing in the Gulf of Maine, with gillnetting running a distant second.)

As for objectives for a marine protected areas program in the Gulf of Maine, 70% of the respondents believed that protected areas management

should emphasize both long term protection of the ecological integrity of the Gulf and restoration of its commercially exploited species. Several survey respondents suggested that designation of highly protected "core areas" where fishing would be prohibited would be critical in carrying out this objective.

"Politics" was cited as the greatest obstacle to Gulf marine protected area designation. Many respondents believed environmental policymakers have little interest in comprehensive protection of the marine environment, and tend to focus on terrestrial environments rather than marine ones, despite the value of the Gulf marine ecosystem.

While most respondents believed a consensus-based approach to marine protected area identification, designation and management, involving all 'stakeholders' was desirable, most also believed that achieving consensus between commercial fishers and conservationists on protection of marine habitats would prove extremely difficult, given the commercial fishing industry's institutionalized right of open access/open exploitation.

A further obstacle to the designation of marine protected areas cited in the survey results was a perceived lack of baseline data to determine the best locations of marine protected areas. Almost half of the respondents believed that current understanding of the Gulf of Maine's habitat structure, habitat locations, species' migratory patterns and harvesting and pollution impacts was inadequate to the task of identifying, designating and managing marine protected areas.

On the question of appropriate management structure for Gulf marine protected areas, 82% advocated a decentralized management structure that included local communities and other stakeholders in the decisionmaking process, at all levels from designation to determination of permitted activities. Many believed that such "co-management" would give local community members a personal stake in the successful long-term management of the area. Nearly half of the respondents also believed that marine protected areas

should be administered by existing agencies, rather than under a newly created one.

The survey report concluded with four recommendations:

1. Hold a workshop on Marine Protected Areas in the Gulf of Maine

This workshop would bring together survey participants with individuals who have participated in the designation and implementation of marine protected areas elsewhere.

2. Define and locate critical habitats.

Various definitions already exist, from the National Marine Fisheries Service's new definition of "essential habitat": "waters and substrate necessary to fish for spawning, breeding, or growth to maturity", to the National Marine Sanctuary Program's definition of marine habitat "courtship, breeding, nesting, nursery, migrating, staging, resting, or feeding areas." These and other definitions should be examined, adapted to the Gulf of Maine and used to locate critical marine habitat.

3. Establish an advisory committee.

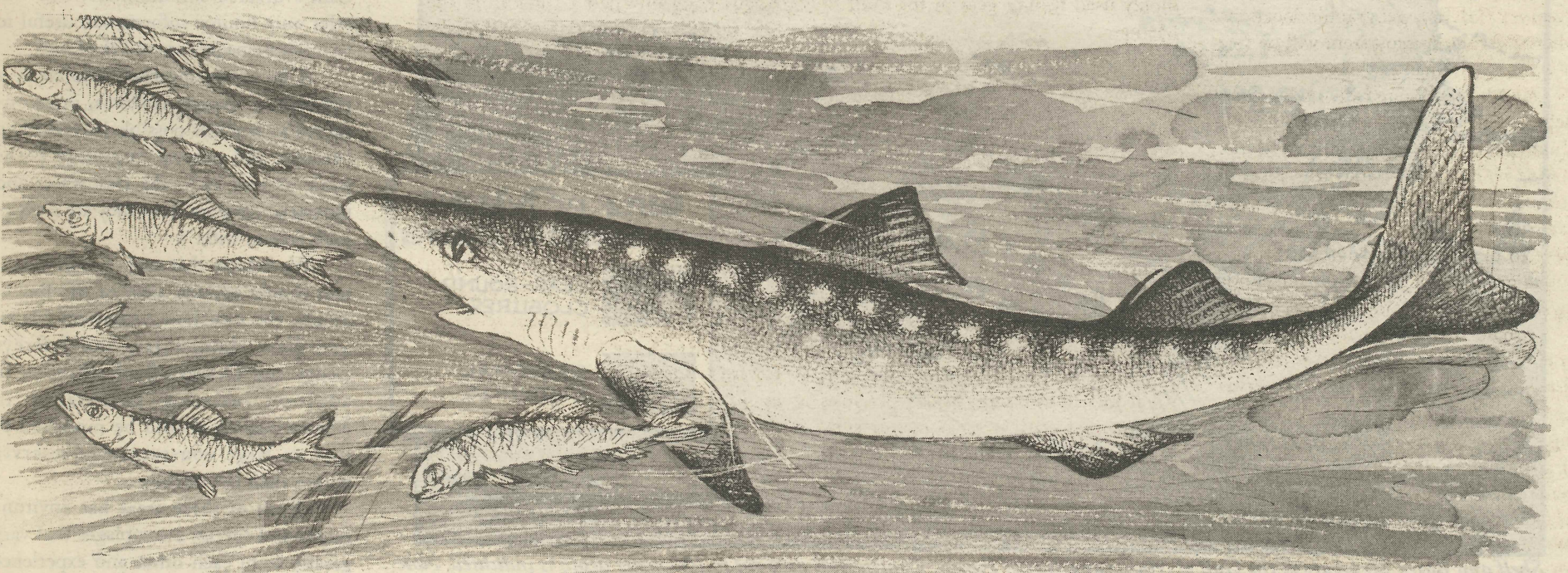
The report recommended that a committee be convened to develop a comprehensive proposal for designing and implementing Marine Protected Areas that would be applicable across state, provincial and national boundaries throughout the Gulf region.

4. Develop a pilot protected area.

Lastly, the report recommended designation of an "experimental" marine protected area which would "help build consensus, demonstrate the effectiveness of the concept, and facilitate an information exchange." Such an experimental site could be used to learn more about size and other requirements that would be applicable to further designations.

Copies of the report "Marine Protected Areas in the Gulf of Maine: A Survey of Marine Users & Other Interested Parties" are available free from:

Maine State Planning Office
38 State House Station
Augusta ME 04333
Tel (207) 287-3261
FAX (207) 287-6489



Dogfish & Atlantic herring

The Gulf of Maine Marine Reserve Complex—An Oceanic Wilderness Proposal

by Ron Huber

It is time to establish a Gulf of Maine Marine Reserve System for the Gulf of Maine. The reserves within the system would ultimately encompass more than 3,000 square miles of submerged plateaus, banks, marine canyons and other marine habitats in an ecologically and biogeographically representative and interconnected network from Minas Basin in the upper Bay of Fundy, along the coastal waters off Maine and New Hampshire, and offshore to the submerged plateaus—Jeffreys Ledge and Georges Bank. These reserves would be “non-extractive”, i.e., off limits to extractive industries of any kind, from commercial and recreational fishing to oil and gas extraction and sand and gravel mining.

Surveys of Gulf of Maine marine stakeholders, academic research, and the experience elsewhere around the globe show strong support for the establishment of non-extractive reserves, areas where marine life is allowed to exist untrammelled by extrac-

tive industries, as a vital part of the restoration and continued functioning of the Gulf of Maine's marine ecosystem. Serving both as ecosystems in their own right, and as core areas that can replenish neighboring, and sometimes distant, reaches, non-extractive reserves (NERs) have been and continue to be created around the globe, with the active support of mainstream political parties, fishing interests and the general public.

But just as proponents of ecological reserves in the Northern Forest face seemingly intractable resistance from the political and industrial establishment and some mainstream environmental organizations, so do those favoring the designation of marine protected areas in the Gulf.

Entrenched fishing interests cling to a mindset that the submerged lands and wild biota of the 30,000 square mile Gulf—public resources all—are nonetheless to be managed solely as their domain. Elected officials and moderate regional conservation organizations, mindful of the “jobs, jobs”

mantra, and lulled by the endless deck-chairs-on-the-Titanic rearrangements of state and federal fisheries management, dismiss marine reserves as politically impossible. “Wise use” groups, too, are poised to strike against what they perceive as a new front in the ‘green conspiracy’.

Nonetheless, the first ripples of the wave to create true marine reserves in the Gulf of Maine have appeared.

At the beginning of the 1990s, the governments of Maine, New Hampshire and Massachusetts, and the premiers of Nova Scotia and New Brunswick, becoming aware of the rapid decline in the Gulf's marine life, created the Gulf of Maine Council on the Marine Environment (GOMCME).

A priority objective of GOMCME is “to promote the protection, restoration and enhancement of fish and wildlife habitat within the Gulf of Maine region”. In 1994 it established a marine habitat committee. While the committee has recommended the designation of an “experimental” marine protected area to “help build consensus,

demonstrate the effectiveness of the concept, and facilitate an information exchange”, we believe that for the following reasons, a single ‘experimental’ marine protected area in the Gulf of Maine would be too little, too late:

- Great expanses of the rich topography of the Gulf of Maine's seafloor, the submerged archipelagoes of ledges, plateaus, seamounts, shoals and canyons dotting the Gulf of Maine have been laid waste by a combination of inappropriate, habitat-destructive fishing technology and unrealistic and unsustainable fish and shellfish capture levels based on political expediency and short term economics. Once supporting a seemingly inexhaustible cornucopia of marine life, much of this area is now a watery desert. Because of the complex way that water moves through the Gulf, a significant percentage of these areas is biologically isolated, and unlikely to replenish for the foreseeable future.

- The Gulf's existing so-called ‘marine sanctuaries’ have failed to protect or even maintain biodiversity. Neither the Stellwagen Bank National Marine Sanctuary off Cape Cod, nor the Ocean Sanctuaries system of Massachusetts, sets any restrictions on commercial or recreational fishing. The same destructive mobile bottom fishing gears that have “desertified” much of the Gulf's seafloor continue to ply back and forth across these “sanctuaries”.

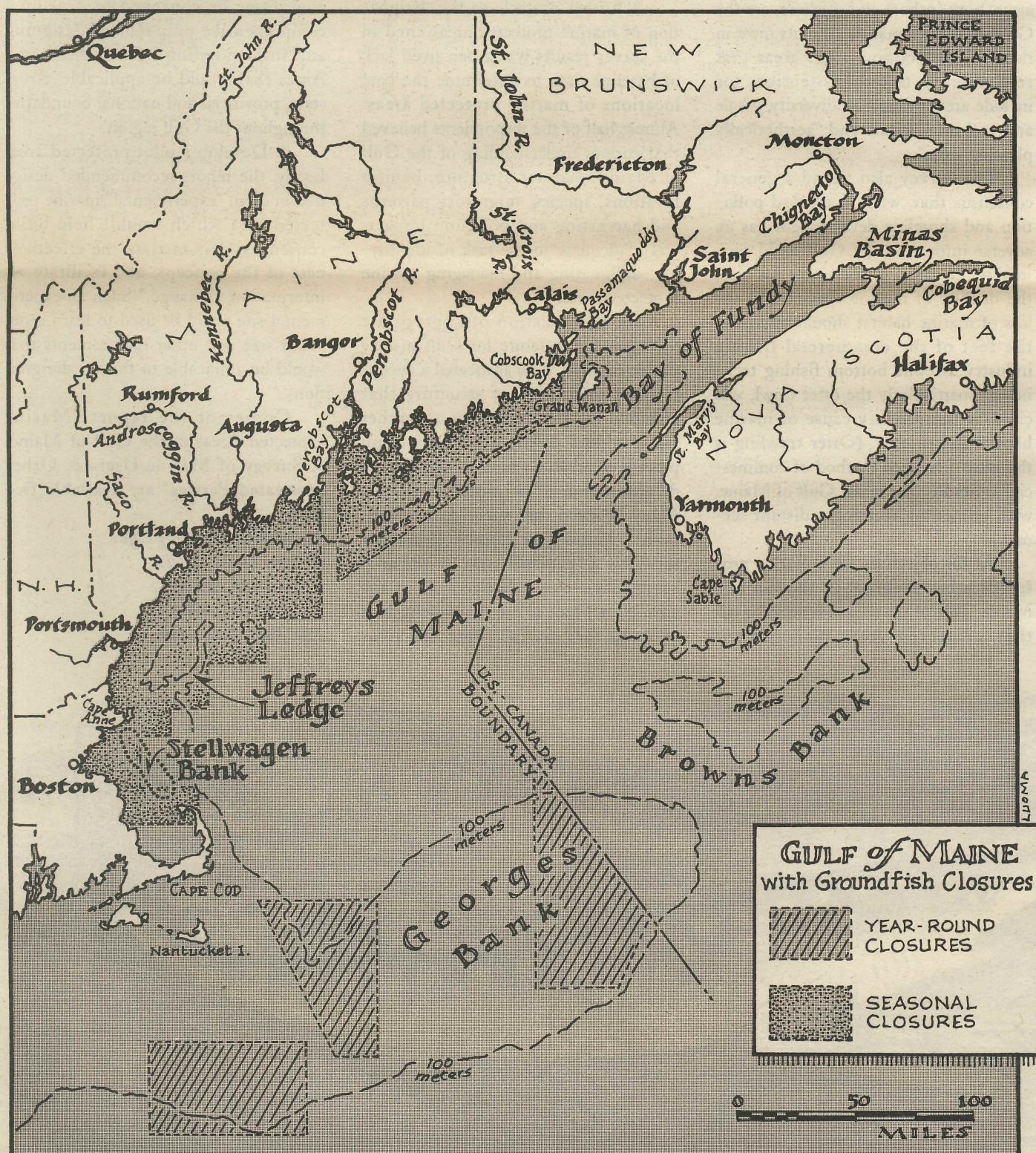
- The waters and submerged lands of the Gulf of Maine, and the biota that use them are public resources. There need be no courting of ‘willing sellers’, no requirement that vast sums be raised or taxed to purchase these areas. Designation processes exist that are open to public initiatives.

- Habitats and species assemblages vary dramatically across the Gulf, from seamounts and vast submerged plateaus, home to the great schools of Atlantic cod and haddock, to sunken plains where dwell monkfish and other denizens of the deep. From mudflats rich with burrowing clams and sea-worms, to placid coves waving with kelp and eelgrass. Unless extraordinarily large, a single “experimental” marine reserve will host but a fraction of the Gulf's diverse communities, and will offer only limited information useful to fisheries managers around the Gulf.

A far better approach is to create a network of marine reserves, interconnected as much as possible by prevailing currents and natural migratory pathways, as well as to the freshwater and terrestrial environments they are ecologically joined with.

We believe that such a reserve system should include areas of the Bay of Fundy, the nearshore waters off Maine and New Hampshire, and Jeffreys Ledge and Georges Bank offshore. In addition, existing sanctuaries in Massachusetts should be modified to include large non-extractive reserves within their boundaries.

Each of these areas has environments and species assemblages that vary greatly from each other and experience varying types and degrees of exploitation. The description of areas below should be taken as a general blueprint



Shelf and Basin Structure of the Gulf of Maine and Bay of Fundy. Continental shelf out to 100 meter depth is indicated. Note that Georges Bank and Jeffreys Ledge are extensions of the continental shelf. Parts of Georges Bank are only four meters deep. Most of the Gulf's primary production takes place on the shelf and offshore banks. Shaded areas indicate seasonal and year-round groundfish closures.

for reserve delineation. The final boundaries will vary as science and politics intertwine during the designation processes.

Bay of Fundy

Minas Basin: the easternmost arm of the Bay of Fundy, an important stopover for millions of Semipalmated Sandpipers and other shorebirds, is a Western Hemisphere Shorebird Reserve. Protection, however, extends only to the low tide line. As the shrimp species they feed upon are dependent on an overall healthy marine environment in the area, reserve status should be studied for most or all of the entire basin. The mouth of the basin was once a significant haddock spawning ground.

Grand Manan Basin: east of Grand Manan Island, near the mouth of the Bay of Fundy is the largest courting and summer feeding grounds for the endangered Northern Right Whale as well as for less endangered humpback whales.

Gulf of Maine Coastal Waters

Cobscook Bay: Located along the Maine/New Brunswick border, Cobscook Bay, like the Minas basin, is renowned for harboring vast numbers of migrating shorebirds, ducks, geese and eagles. Almost entirely landlocked, and comparatively sheltered from winter storms, Cobscook Bay has immense tidal mud- and sand-flats and New England's largest eelgrass meadows. In the outer bay, high velocity channels and rocky outcroppings support large

kelp forests. Throughout the bay, the rich nutrient base supports a highly productive planktonic community.

A very rich diversity of marine animal life inhabits Cobscook Bay, from soft shell and razor clams and more than a dozen species of marine worms in the intertidal zone to scallops, mussels, sea urchins, crabs and lobsters in subtidal rockier areas. There are significant herring spawning areas in Cobscook Bay as well, and Atlantic Salmon transit the bay enroute to their spawning areas in the Dennys River. There is intensive interest in protecting the natural landscape surrounding Cobscook Bay. It is only reasonable that the waters of this important bay receive the same treatment.

Midcoastal Maine: This reserve study area would include NOAA's 1985 proposal, now dormant, for a Midcoast Maine National Marine Sanctuary, but would be expanded out to include the submarine canyon complex to the southeast. The edge of the continental shelf comes closer to the shore here than in any other area of the Atlantic coast. The canyons within the study area serve as migratory routes and as regions where nutrient rich waters upwell from the depths of the Gulf of Maine basin. The area supports a very rich assemblage of estuarine and marine species, including some of the most biodiverse areas of the eastern seaboard.

Jeffreys Ledge: Jeffreys Ledge is a 20 mile long by four mile wide submerged bank roughly 50 miles offshore southern Maine and New Hampshire. The

surface of Jeffreys Ledge is rocky on the shallower areas, with sand and gravel on its outer slopes. Depths range from 130 feet to 200 feet, dropping off to 300 feet and more as it slopes into the Gulf basin.

Because the prevailing currents on Jeffreys Ledge travel from north to south along its long axis, following the general counterclockwise flow of water around the Gulf of Maine, the Ledge was formerly one of the richest haddock grounds of the United States. Intensive commercial fishing has degraded the area to the extent that the offshore trawling industry recently offered to refrain from exploiting it, in exchange for continued access to more inshore waters, a proposal met with much misgiving by the existing inshore fishing industry.

Georges Bank: In the early 1980's the National Marine Fisheries Service, supported by the Conservation Law Foundation and some elements of the fishing industry, nominated the 8,000 square mile Georges Bank, a vast submerged peninsula that forms the southeastern boundary of the Gulf of Maine, for National Marine Sanctuary designation. This was a response to plans to develop Georges Bank as an oil and gas production region. The sanctuary proposal was withdrawn under pressure from the oil industry and its political partisans, but conservationists succeeded in keeping oil and gas exploitation off Georges Bank as well.

Once the richest cod and haddock habitats of the US Atlantic coast, Georges Bank, like most other produc-

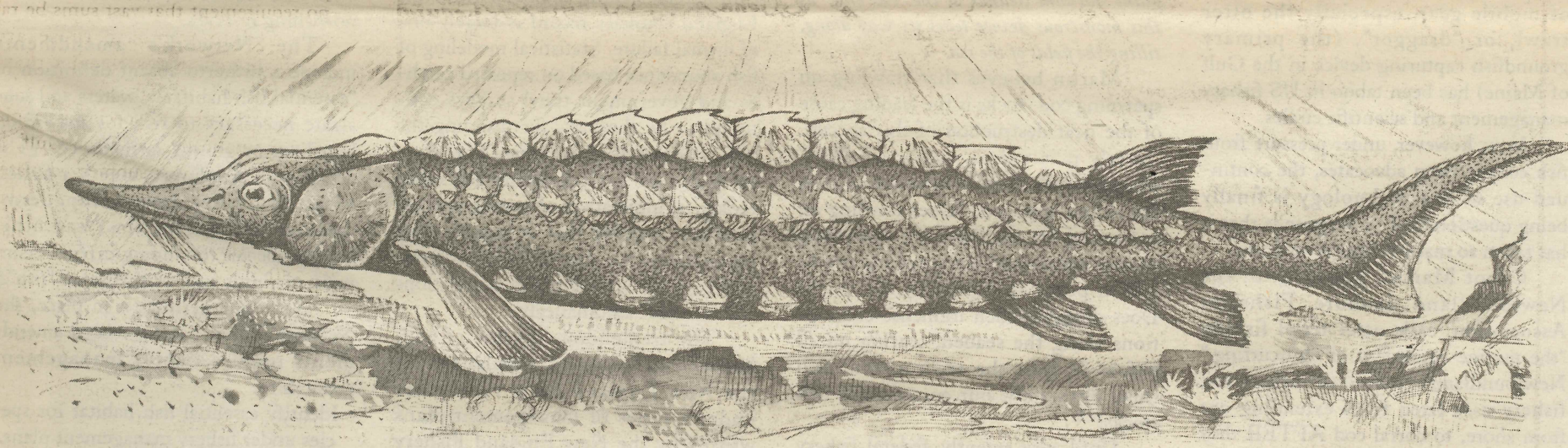
tive areas, has been relentlessly impacted by mobile bottom fishing gear, which has stripped away much of the low-relief bottom habitat necessary for the survival of juvenile groundfish.

The reserve study area would include areas of Georges Bank under both US and Canadian jurisdiction. The Canadian section possesses large areas predominated by a rock and gravel seafloor historically considered to be highly productive cod spawning areas, while much of the American portion of Georges Bank is characterized by sandy/muddy areas preferred by haddock and its suite of ecological co-habitants. Halibut, mackerel, swordfish and other oceanic fishes also range across Georges Bank, in addition to Humpback and Right whales. Reserve study areas should include large portions of the Bank under both jurisdictions.

Jewels in the Crown

The above areas are only suggestions; however, each study area should be seen as a "Jewel in the Crown" of the Gulf of Maine for their high productivity and biodiversity. As mentioned above, the push for protected marine reserves has only begun in the Gulf, and will require a concerted effort by those who would see the Gulf regain its former glory.

How You Can Help: Contact Coastal Waters Project, POB 94, Lincolnville, ME 04849; tel. 207-789-5310 to find out more about how you can help establish an Atlantis Marine Reserve System for the Gulf of Maine.



Atlantic sturgeon

ME Legislature to Ponder Marine Reserves

A bill introduced into the Maine Legislature by Representative Paul Chartrand directs the Maine Department of Marine Resources (DMR) to study the desirability of establishing marine reserves in state waters.

The bill expands the DMR's Fisheries Management Research Program (which focuses primarily on lobster research), by directing the Commissioner for Marine Resources to establish a study of ecological marine reserves in Maine state waters. The bill specifically calls for investigations of habitat requirements of fin- and shellfishes managed by the state, and asks DMR to delineate potential marine reserves with non-extractive areas in Maine state waters.

While the idea of non-extractive, or "no-take" marine areas has received little attention here, it is taken very seriously in other parts of the world. In

New Zealand, Japan, Australia, South Africa, the Philippines and elsewhere around the world, large marine reserves (areas where marine ecosystems are left undisturbed by fishing and other extractive industries) have been shown to serve as refugia for spawning and larval and juvenile fish and shellfish, to restore natural biodiversity at the species and community level, and to increase the abundance of marine biota outside the reserves through emigration.

"Traditional" state fisheries management eschews marine reserves in favor of allowing commercial and recreational fishing to take place throughout state waters. In theory, limits on size, season, and catch restricts harvesting to "excess population", while leaving the reproductive capacity intact. In practice, Maine has experienced sharp declines in species after species to the point where commercial finfisheries in Maine coastal waters are practically non-existent. "Innovation"

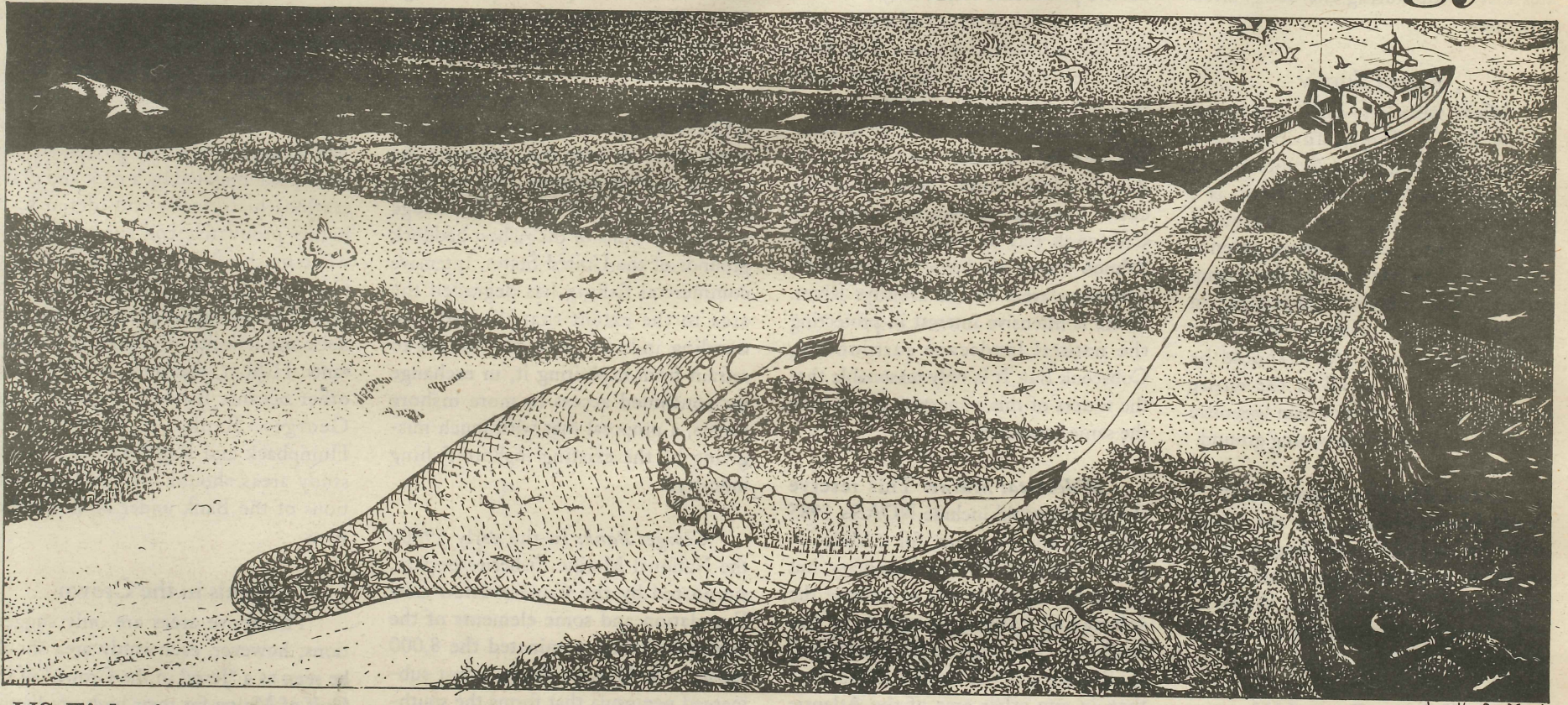
in state fisheries management typically consists of finding markets for, and directing fishing pressure onto, previously unexploited species such as sea cucumbers, whelks, and anglerfish. Such management is in effect "mopping up the survivors".

Because DMR's budget, like those of other natural resource agencies, is likely to be funded at existing or reduced levels, the bill directs the Commissioner to seek funding for the study from sources outside the state government, including the Gulf of Maine Council on the Marine Environment.

As of press time, the bill had not yet received its LD #, nor has a date been set for hearing by the Maine legislature's Marine Resources Committee.

For more information, contact Ron Huber at the Coastal Waters Project at 207-789-5310. Address: POB 94, Lincolnville, ME 04849.

Appropriate Fishing Technology



US Fisheries Regulators Tiptoe Toward Ending 'Marine Equivalent of Clearcutting'

by Ron Huber

Since the 17th century, concerns have been raised about the use of mobile bottomfishing technologies that damage or destroy fish habitat in the course of operation. But until very recently, open discussion of the impact of mobile gear, especially the otter trawl, or "dragger", (the primary groundfish capturing device in the Gulf of Maine) has been taboo in US fishery management and scientific circles.

Now, however, under pressure from fish conservation advocates, the continued use of this technology is finally being questioned. The surprise is that it has taken so many centuries to do so.

Cabot Martin, president of the Newfoundland Inshore Fisheries Association, calls otter trawl fishing "the marine equivalent of clearcutting." Newfoundland's traditional inshore cod fishery uses fixed traps extending out from shore, to corral cod AFTER they spawn, when they migrate from offshore to coastal waters in pursuit of capelin, a small fish that spawns onshore. Undersized fish and unwanted species can be released unharmed. But when the Canadian federal government subsidized large-scale otter trawling in the northern cod's offshore spawning grounds, Newfoundland cod trappers saw their livelihoods disappear.

In his book, *No Fish and Our Lives*, Martin vividly describes the operation of the modern day otter trawl:

Along the bottom of the ocean, home to so much sea life which cannot move or can move only slowly, comes the trawl net, some 90 feet in width and 150 feet in length.

The head rope moves like a ghost, suspended some 15 feet off the bottom by a necklace of large floats; the foot rope of cable, chain and heavy rubber rollers grinds along the sea floor like some giant reaping machine.

Off to each side come the trawl doors, some six feet in width and 10 feet in length, gouging the sea floor like two D9

tractor blades. Between them and the trawl mouth are two heavy steel bridles, each 300 feet long, which sweep across the sea bed setting up a hell-raising cloud of mud, forcing all that can move to flee back into the path of the oncoming trawl net.

Back and forth; back and forth; back and forth the fleets of trawlers go, until it is time to move on, leaving a watery desert in their wake.

Seaweed, starfish, shellfish, sea worms, sea cucumbers, small fish, big fish, good fish, trash fish, anything that creeps or crawls, all of them are uprooted or driven into the giant vacuum cleaner of the "cod end" as this monstrous device tears its way along, tilling the fields of the sea.

Martin believes that trawling on spawning cod stocks is the leading cause of the near destruction of this species. "Surely it is only a matter of time," Martin writes, "before someone will ask the simple question: 'Does trawling on spawning stocks hurt the spawning process and should not spawning fish be left in peace to replenish the stock? Does dragging such immense contraptions along the seabed, tearing up all before it, hurt the environment and thus, ultimately, our commercial fish stocks?'"¹

Until very recently, federal fishery law not only paid scant attention to the habitat requirements of the marine species under their jurisdiction, it all but ignored the environmental consequences of otter trawling.

The primary legal tool used to regulate the commercial fishing industry in US jurisdictional waters (those waters between the 3 mile limit of state jurisdiction and the outer edge of the 200 mile US Exclusive Economic Zone) is the Magnuson Fishery Conservation and Management Act.

Under the Magnuson Act, eight fishery management councils were created to set quotas and fishing technology limits around the US coasts. Made up primarily of commercial fishing interests but also including representatives of state and federal governments, each Council creates "fishery management plans" which set quotas and fishing technology restrictions for capturing commercially desired fish and shellfish species within their jurisdiction. These plans are then reviewed by the

Commerce's subagency, the National Marine Fisheries Service.

The New England Fishery Management Council's area of jurisdiction encompasses the federal waters offshore of Maine, New Hampshire, Massachusetts, Rhode Island, and Connecticut and out. Jurisdiction over Georges Bank, the 15,000 square mile submerged plateau that separates the Gulf of Maine from the North Atlantic, is split between the U.S. and Canada.

While the Councils were created to provide for better management of the commercial fishing industry, the New England council's record is largely one of dismal failure. Statistical modeling of fish abundance based on reported catches and government trawl surveys continues to be the basis for deciding the size of annual fishing quotas. The models ignore the habitat, dietary and other ecological imperatives of marine species, in effect assuming that as long as their populations are not reduced to zero, marine fishes and shellfish populations will "rebuild" automatically.

The tremendous decline of cod, haddock and flounder populations off the New England coast took place under a series of management plans written by the New England Fishery Management Council, and signed off on by the National Marine Fisheries Service. Dominated by trawler interests, the Council has always fought against any reduction in the use of mobile bottom fishing gear in New England waters, or even an examination of its impact. The near "commercial extinction" of the cod and yellowtail flounder off the New England coast has finally forced the federal government to close large areas to groundfishing. However, once those areas show signs of recovery, trawlers anticipate resuming their activities.

But now, thanks to a determined effort by a coalition of conservation and environmental groups organized as the Marine Fish Conservation Network, the New England Council's decision-makers will have to both pay more attention to the habitat needs of the species under their jurisdiction, and begin examining the impact of trawling on the marine environment.

The Network, whose New England

membership includes Coastal Waters Project, Conservation Law Foundation, Maine Lobsterman's Association, New England Aquarium, New England Coast Conservation Association, Massachusetts Audubon and Massachusetts Wildlife Federation, this year succeeded in adding most of their laundry list of marine habitat protection elements to the Act, which was up for reauthorization. Properly enforced, these changes to the Magnuson Act could result in the protection and restoration of fish habitat that would otherwise require the creation of marine no-fishing reserves.

The Network's amendments include a hitherto absent definition of "essential fish habitat": "waters and substrate necessary to fish for spawning, breeding, or growth to maturity." [The Magnuson Act lumps together fishes, mollusks, crustaceans, echinoderms (starfish and sea urchins) and other marine species (excluding marine mammals, sea birds and sea turtles) as "fish".]

With this definition in place, the Network's other habitat-related amendments require fishery management councils to:

- Identify essential fish habitat for species under fishery management plans.
- Minimize adverse impacts on this habitat caused by fishing.
- Identify actions that should be undertaken to encourage the conservation and management of essential fish habitat.

The amendments also require the Secretary of Commerce, acting through the National Marine Fisheries Service, to establish guidelines to assist the councils in describing and identifying essential fish habitat, and require ALL federal agencies to "consult with the Secretary of Commerce with respect to any actions authorized, funded or proposed to be undertaken that may adversely affect essential fish habitat identified under the Magnuson Act".

The National Marine Fisheries Service is presently developing the new guidelines as a proposed rulemaking, with a December 9, 1996 deadline for public comments.

¹ No Fish and Our Lives. Some Survival Notes for Newfoundland, Cabot Martin. Creative Publishers. St John's Newfoundland, 1992.

New Brunswick, Nova Scotia Could Designate Marine Reserves

by Ron Huber

Both New Brunswick and Nova Scotia have laws on the books that authorize the creation of ecological reserves. While to date neither province has applied their respective laws to their marine environments, a reading of their laws leads to a conclusion that designating marine reserves is within their purview, and that, while the requirements are stiff and public participation in the designation process is limited (particularly in Nova Scotia), persistent efforts on the part of determined citizens could lead to marine reserve designation.

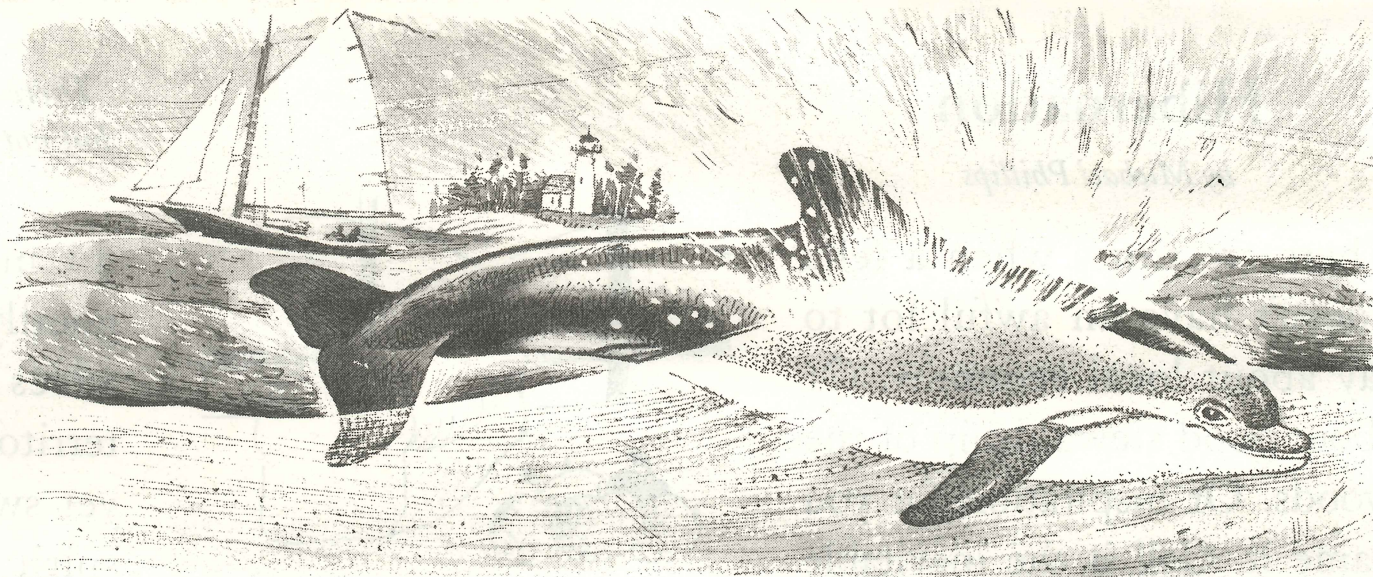
New Brunswick's 'Ecological Reserves Act'

Passed into law in 1975, New Brunswick's Ecological Reserves Act (Revised Statutes of New Brunswick, Ch. E-1.1) establishes a two-tiered ecological reserve system: "managed ecological reserves" and "wholly protected ecological reserves." The former are "established for the monitoring and scientific guidance of the evolution of nature", while the latter are "established for the absolute protection of a territory in a natural state."

The Act's purpose is to "reserve areas, for ecological purposes,

(a) that are suitable for scientific research and educational purposes and other aspects of the natural environment;

Subject to moderating regulations, the New Brunswick Ecological Reserves Act prohibits a broad spectrum of human activities in ecological reserves. Under the Act: "...no person shall hunt,



fish, trap, conduct forestry, agriculture or mining operations, conduct exploration or boring, prospecting, leveling or construction work in an ecological reserve; and in general, works of a nature that may alter any part of the terrain or of the vegetation and any acts of a nature that may disturb the fauna or the flora are forbidden." An additional prohibition bans the introduction of nonindigenous animal or plant species into ecological reserves.

The reserve designation process is fairly straightforward:

"Any person" may petition the provincial environmental council for the establishment of an ecological reserve. The council reviews the proposal, and notifies the provincial Minister of Natural Resources and Energy. A public hearing follows, which must be announced in daily and weekly newspapers in the region. Following the hear-

ing, the Minister issues a recommendation to the Provincial Lieutenant-Governor whether the ecological reserve should be established. The LG may then order the establishment of the reserve, setting forth a management plan, and establishing, in the case of a "managed ecological reserve" what activities may take place for the "monitoring and scientific guidance of the evolution of nature".

Nova Scotia's 'Special Places Act'

Enacted in 1980, the goal of the Act (Revised Statutes of Nova Scotia, Chapter 438) is to preserve "archeological, historical and paleontological sites, and ecological sites".

Concerning the latter, the Act provides for:

"the preservation, protection, regulation, acquisition and study of ecological sites which are considered important parts of the natural heritage of the Province". Site consideration is limited to those locations that:

(i) are suitable for scientific research and educational purposes,

"Special Places" may be established on private or Crown (public) lands, including submerged lands. This would appear to give the province the opportunity to create marine protected areas in the Bay of Fundy.

Nova Scotia's ecological site designation process is carried out by the Minister of Education, with the advice of an advisory committee chaired by the

director of the Nova Scotia Museum, and composed of representatives of the provincial departments of Education, Environment, Lands and Forests, and Mines and Energy, a representative of the Union of Nova Scotia Indians, and "any other public or private entities that the Minister of Education deems advisable." Apart from those private entities that the Minister "deems advisable", the law does not appear to contain any provisions for public participation during either the designation or regulation-writing processes.

Prior to site designation, the Minister of Education, with the assistance of the advisory committee, must create a management plan, containing "information regarding the purpose of the site and information and regulations which will assure the protection of the site."

Prohibitions on a Nova Scotian ecological "special place" site include a ban on "any activity which may alter any part of the terrain or of the vegetation or carry on any acts which may disturb the fauna or the flora within the designated site." Exceptions are made for ecological research, which may be performed by permit.

Environmental agencies from both provinces participated in the Gulf of Maine Council on the Marine Environment's 1996 survey on the potential for a Gulf-wide marine protected areas program.

Government Agencies Involved in Gulf of Maine & Bay of Fundy Marine Habitat Management

The following government agencies will have a say in the creation of marine reserves in the Gulf of Maine. Agencies with a single asterisk (*) after their names are involved in living marine resource management. Agencies with two asterisks (**) after their names are involved in park and submerged lands management.

NOVA SCOTIA
Nova Scotia Department of the Environment**
POB 2107
Halifax, Nova Scotia B3J 3B7 TEL: (902) 424-5695

Nova Scotia Department of Fisheries*
POB 2223
Halifax, Nova Scotia B3J 3B7 TEL: (902) 424-0347

NEW BRUNSWICK
New Brunswick Department of Fisheries and Aquaculture*
268 Milltown Boulevard
St. Stephen, New Brunswick E3L 1H6 TEL: (506) 466-3928

New Brunswick Department of the Environment**
Planning and Sciences Branch
POB 6000
Fredericton, New Brunswick E3B 5H1 TEL: (506) 457-4844

MAINE
Maine Department of Marine Resources*
Marine Resources Laboratory
McKown Point
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Maine Coastal Program**
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Massachusetts Department of Environmental Management**
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Massachusetts Office of Coastal Zone Management**
100 Cambridge St
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FEDERAL AGENCIES
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One Blackburn Dr.
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Northeast Fisheries Science Center*
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116 Water St.
Woods Hole, MA 02543 TEL: (508) 548-4123

INTERSTATE
Habitat Committee**
New England Fishery Management Council
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Saugus, MA 01906 TEL: (617) 231-0422

Habitat Coordinator**
Atlantic States Marine Fisheries Commission
1444 Eye St. NW, sixth floor
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EVERY PERSON'S NEED

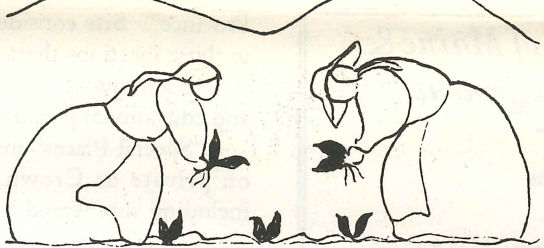
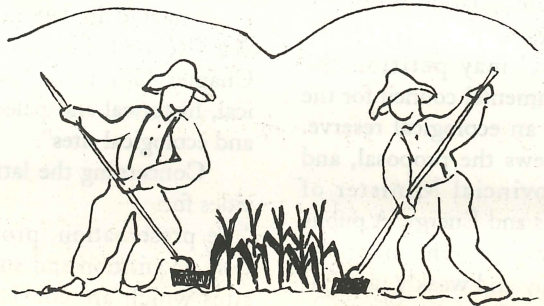
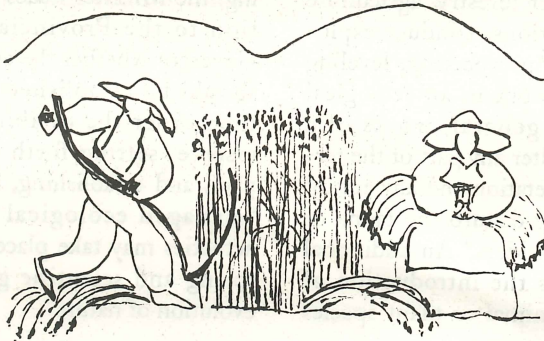
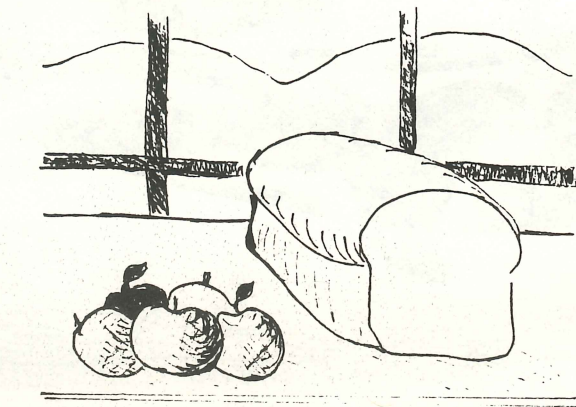
Hibernation

by Michael Phillips

There are times when a fella doesn't have an awful lot to say about local economy. Or about good stewardship of the woods. Or inspiration for you name it. Call it the inevitable ebb and flow of believing you can affect some good in this world. All of us know such times when you wonder if anybody else out there is even listening. Once you've got that kind of attitude, it's best to tuck your tail between your legs and hibernate like a grouchy old bear ought.

Winter is a fine time for laying low. There's a spirit of rest on the land. The trees stand bare in the ice cold air; the deer yard up to conserve their energy. The past year isn't so much forgotten as left to be. Pressures to put up the harvest, fill the woodshed, fence in the new pasture are all let go. With a cheery fire blazing and a good book in hand, you can doze early in the evening and get up late the next morning. And if it weren't for a certain editor calling about writing a local economy column, there's time for a sound afternoon nap as well.

Too often we get burnt out in pursuit of our ideals and beliefs. Sharing a sunset with a friend, a brief hike alone in the woods, meditatively hoeing down the long garlic row,



all help keep the soul on an even daily keel. Being with the people we love is as vital as being on the front lines of passionate activism. Such 'balance in the every day' is integral to effective living. But we also need the 'balance of the year' that winter offers. A time for renewal and rebuilding optimism.

As the days start to lengthen, there's a stirring in the sap of our being. It starts out slowly. Maybe there is time to attend that meeting on stopping herbicide spraying (actually, not so much a question of time as realizing such things

"There is enough for every man's need, but not enough for every man's greed."

— Gandhi

do make a difference). A goodly thaw gets the chickadees declaring their spring territoriality. Tree buds aren't yet swelling but the ethereal spirit has awakened. We too want to bound forth. . . . There are connections to be made for planning a North Woods 'green business' network. Buds are swelling; geese are honking overhead; spring peepers have begun their incessant symphony of romance. There are even ideas for future "Every Person's Need" columns. *Perhaps people will yet grasp the fact that a WalMart economy drains us all.*

Down in Pennsylvania, folks give a lot of attention to a certain groundhog found in the fields around Paxatawny. Ol' Phil reckons on seeing a shadow (about the length of the two full pages this column ordinarily fills) and then nose dives back down into the warmth of his burrow to hibernate some more. Six more weeks of winter are predicted with the sighting of that shadow. There's no telling what the shadow of a grouchy old bear from Lost Nation is worth.

While dreaming of hibernating, the old bear from Lost Nation is currently at work on a book on organic apple growing.