Reflections

On the Future of Maine's Environment

Fall, 2000

This special publication by the Natural Resources Council of Maine is designed to provoke thought about the future of Maine's environment. Within these pages you will find essays, poems, art and photography that capture the passion that Maine people have for our natural world, as well as our concerns about protecting Maine's environment for future generations.

Each contributor has offered a reflection, in the broadest sense of the word. As defined by Webster's Dictionary, "reflect" means: to throw or bend back from a surface, to mirror or be mirrored, to manifest: reveal, to think seriously: meditate, or to bring blame or reproach. Each facet of this definition can be found within the pages of this publication.

Our assaults on nature are often thrown back at us. Our understanding of the human spirit, and of our place within the natural order, is mirrored in our creations and actions upon the landscape. Some of our deepest personal revelations come while experiencing refuge in a remote place — in the woods; in the wild. The impacts of human activities on the environment demand serious thought, which can generate blame and reproach.

A reflection captures a current image, an important thought, a memory. A reflection can also give rise to a new perspective, based upon a reminder of what really matters. None of us knows what Maine will look like 50 years from now. As we look to the future we may see reflections of our best efforts to secure a sustainable society, or we may see environmental disasters. Each of us has a role to play in determining the fate of Maine's environment.

We hope that you enjoy the diverse offerings of this publication, and that they give you cause to reflect.

Pete Didisheim, *Editor*

NATURAL RESOURCES COUNCIL OF MAINE

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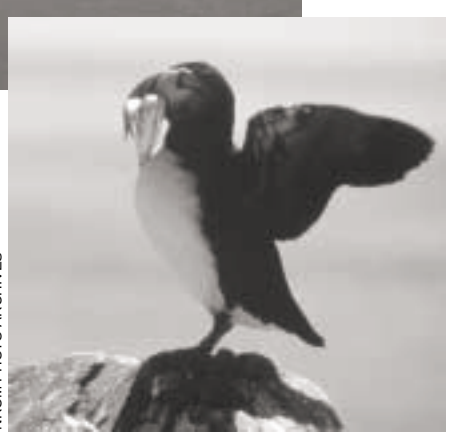
Art

All of the artwork in this publication is by Jon Luoma of Alna. We thank Jon for allowing us to tap into his portfolio of wonderful pieces, and also for generating several new drawings. Many of the illustrations used in *Reflections* first appeared in the *Northern Forest Forum, Maine Times,* and in publications released by the Maine DEP, Damariscotta River Association and the Island Institute.

Photography

Unless otherwise indicated, all of the photos accompanying essays and poetry in this publication are by Dean Bennett. We marvel at his gift at capturing nature on film.



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We offer our deep appreciation to the authors who contributed to this publication, and to the Center for Teaching and Learning in Edgecomb for their assistance in identifying poetry by children and young adults.

Water is the Measure of All Things

— by Linda Tatelbaum

I'm pumping water from the old well we found in a thicket of plum trees. We cleaned out the narrow stone cylinder sixteen feet deep, and topped it with a cedar cover. It provides ample water for setting out seedlings in May and June, hand-pumped to deliver a slow rush of cold water into buckets and watering cans. By July, the well runs dry.

Such limits invite small plans, scaled to a finite volume of water, a human's ability to pump and carry. *Crink-CRONK...crink-CRONK*, the rusty handle sings me into a reverie. I dream a dream the size of home. A garden one family can eat. A cellar to hold most of a winter's food. An income that makes up the difference. Today my trance is ended not by the ritual drink from a tin cup, but by the intrusive rumble of a low-flying airplane. Suddenly I'm seen, standing on the source of water that makes my dreams possible.

Joy-rider, corporate executive, pesticide sprayer, game warden. They fly overhead, watching as the view of blue roof, orchard, garden, arbor, passes into woods and more woods. They travel above the treetops, reading a story whose plot follows waterways created by glaciers, the story of human life on the land. If they keep watching through their little round window, they'll see how people built towns where water gave access, power, and fertile soil. How we flourished near squiggly streams, silver rivers, blue lakes that reflect sunlight like pieces of a broken mirror. Perhaps, circling low, they'll see themselves reflected in those mirrors, and some of what they see will not please them. The glint of crowded parking lots shimmering with heat, housing developments, stalled traffic.

I continue my work, lugging buckets to the garden. The small plane is long gone, but overhead now a distant jet writes its story in white trails on the sky. Those remote passengers see Maine as a continuous forest decorated with curlicues of water and a few bald spots. Nothing but land. No human scale by which to measure big plans such as one might dream while flying across a continent.

I'm worried about big plans. Higher-than-land plans. "Because we *can*" plans. As I return for more water at the well, fatigue tells me how much I can do with what I have. We work together, water and I, human inventiveness in balance with physical resources.

Big plans require force, balanced only by the money that funds it. Bulldozers, dynamite, irrigation. Pipelines, highways, fiber-optic cable. Corporations, politicians. Workers to carry out the grueling labor someone else dreamed up. High-flying ambition sees land, land, land, and can't discern the fragile details—a balance of people, animals, plants, water.

Big plans depend on water beyond the scale of human-hauled buckets. From above-and-beyond contact with the land, it's easy to say: "Just look at all that water! Plenty for mixing concrete, irrigating man-made cranberry bogs, diverting mountain streams to make snow at ski areas, maintaining elaborate landscapes. There's always more where that came from. Watch how much pours off roofs and parking lots into streams when it rains. The ocean will catch it and clean it up for us. See how blue the water is!"

The view from on high can make us forget limits. Or this privileged position can inspire us to treat the whole earth with tender gratitude. I've flown in jets myself. While fellow passengers closed the shades to view a movie, I pressed my forehead to the window and watched a whole continent unfolding beneath us. Boston Harbor, Berkshires, Mohawk Valley, Finger Lakes—familiar territory. Then the big-veined Ohio and Missouri Rivers crashing into the Mississippi. Quilted Nebraska and rumpled Wyoming. The Rockies a bony skeleton buried in deepest white.

The plane's Musak played tribal flutes, pure as the wind, the sound of a music put to silence by everything that was flying us. And yet I rejoiced in this awesome invention—a way to see the land for what it is. It's more than a resource. It's our home, our history. It's us.

Back down on the ground, I open the hinged well-cover to check the water level. From your passing jet, watch me peer down the cool, dark cylinder to measure the limits of my ambition. There's the blue sky at the bottom of the well, and a human face looking up at me. I can see you down there, too. When the water goes dry, the sky and the face and all of us will disappear. The shadow of plum branches waves in the breeze. I wave back.

A Vision for Maine's Woods

— by Robert Kimber

A vision for the Maine Woods? Simple. Think big, think utopian. First, a big wilderness territory. How big? I don't know. A million, two million, three million acres. We can talk about that. I don't much care who buys the land or what you call the results: Maine Woods National Park, Angus King State Forest Primeval, Bill Gates Memorial Wilderness. Then we'll need something like a hundred years after we dig up all the roads and close the place to motorized travel before we can nurse that land back to anything even approximating its original condition.

But, you object, this great wilderness will not be real wilderness at all. It will be an artificial wilderness, a museum wilderness. What could be more oxymoronic or just plain moronic? Why bother with such fakery? Because, given the long reach of Lord Man's arm, any wild land on the face of the earth will have to be preserved artificially, by human intent. We think our artistic and historical heritage is worth preserving in museums. Surely our natural heritage deserves the same respect.

So-called wild land was our first home, the ground on which all our cultures grew. In the beginning was not the Word but the wild. Our hearts ache for that ancestral home. Every person on this planet should have some wilderness within easy reach and be able to know firsthand what "In the beginning..." really means. One of the great privileges of my life has been to see mile after mile after mile of land free of human purpose unroll before me. Either you think that an important experience, or you don't. I think it hugely important.

And what about those other millions of wooded acres we manage as timberland? In the mid-1950s, when my father bought and began operating a sporting camp on Big Jim Pond in western Maine, I was lucky enough to live briefly on Maine timberland that was no forest primeval but had not yet been cracked open by the bulldozer. Jim Pond Township had seen the axe more than once, the last time in the 1930s. But the cutting had been done in the winter, the logs hauled to the banks of the Dead River on the snow, then driven to the mills on the spring freshet. The forest floor had never been torn open; the species mix of vegetation had not been radically altered; the winter roads grew back in, leaving only trails we kept swamped out and blazed for hikers and hunters.

When the bulldozer did come to Jim Pond Township in the late 1950s, it brought what it has by now brought to all of northern Maine: miles and miles of gravel roads and industrial wood extraction. You can't work a forest like an open-pit mine and still have a beautiful forest or, for that matter, even much in the way of an ugly, impoverished forest. And that same extractive mentality found its way into recreation as well. Get in and get out fast. Don't linger. Drive your jeep to what was once a remote pond, fish it out, get back to the motel in time for the Red Sox game. "It's the goddam bulldozer's been the ruination of this country," Don Yeaton used to growl. In his 80 years, he had been lumberman, guide, game warden, in short, woodsman. He was no sentimentalist about trees, but he knew ruination when he saw it.

Like Big Jim's previous owners, we cut firewood; we cut logs to build camps; we cut ice in the winter. By the end of November, we had a deer or two hanging in the ice house. We made use of the forest's resources, but, like porcupines and kingfishers, we were citizens of the forest, living in it but not ruling over it. We, of course, took ridiculously little, but even if the pre-World War II loggers had taken too much, they had not rebuilt the landscape in their own image. They had left the woods in charge. Big Jim's woods remained what we all understand when we hear the phrase "the Maine Woods." And to say that, is also to say they remained beautiful. That, too, is something I think hugely important. If anyone says its impossible to cut timber and have beautiful woods at the same time, well, that just isn't true. Plenty of woodlots in Maine and elsewhere give the lie to that claim.

So there's the vision: a working forest where men and women can work not as pulpwood miners but as citizens of the forest community, silviculturists for whom the forest itself matters as much as—no, more than—forest products, silviculturists creating a *culture* in and of the woods. And embedded within that working forest is a forest primeval, a vast sacred grove where no work is done and where we can always go to remind ourselves what the model for our working forest should be.

On this first morning

— by Tom Fallon

On this first morning,
before sun rise.

I wake.

Morning air unmoving
over the dark lake.

Water moving slow,
quiet, breaking
under hemlock.

Stones in clear water.

A bird squeals sweet
in the trees.

Quiet.

Across the lake, dark hemlock.

Stones in clear water moving
slow, quiet.

On this first morning
at the lake, dark mountain
distant, grey sky
distant.

Water breaking.

Sun rise,
sky bluing,
without sound.

Morning air unmoving.

Reclaimed Land

— by Robert M. Chute

In my town the first stage route
crossed a narrow thoroughfare,
a watery gap between two ponds
making a river so short
you could shout
from one end to the other.

They gave this passage-way,
this river,
our family name.
There may have been a log bridge
or a raft or just a ford,
no one knows for sure.

In the horse-and buggy days,
when grandfather drove the stage,
there was a drawbridge
to let canal boats through
for dams, locks, a canal, had joined
our pond to the sea.

As the water level rose,
cartloads of rocky glacial till
raised the roadway
to a causeway, and behind it,
turned the marsh to land.

Across the cove behind the causeway
Indians, in summer, camped
at the margin
of this new white man's land, turning
sweet grass, ash splints, birch bark
into gift-shop cultural traditions
as the tourists came.

Grandfather had an ice cream stand.
My father washed and shaved
ghost-blue ice blocks
from our ice house, shaved with
a hands-breadth chisel, its scalloped edge
like finger tips.

Shaved, not chopped, he said,
when he showed me, layering
the ice with rock salt.
The faster it freezes the better, he said,
as the crank turned harder and harder.

In my time Indians were only stories,
except Roland Nelson, Penobscot,
entertaining hotel guests
in his Lakota eagle-feather headdress.
They don't believe I'm Indian
unless I wear it, he said.

The Chute River, broadened by
the dammed-up waters, gained brief
Book of Records fame
listed as the only river wider
than it was long.

In the cover where Indians camped
a marina feeds the urgent
leisure trade.
Rows of power boats like shiny
aluminum and plastic piglets
suckle the sterile shore.

April and then May

— by Kate Barnes

April and then May,
violets up in the field,
the ewes with their twin lambs;

time has decided
to turn into spring again
after all.

The maples are unfolding their leaves,
chives stand green at the kitchen door,
the black flies have decided to come back;

and the work mare has her new foal
capering over bluets in the pasture,
and the hall smells of daffodils;

and everything
is divinely ordinary –
the deep ruts in the field track,

the spring overflowing,
the excited swallows,
the apple trees

budding for perhaps the hundredth time –
and the pruned boughs budding too
that must bloom just where they lie.

Woodpile Gospel

— by Robert M. Chute

And Jesus said split a piece of wood and I am there. Lift up a stone and you will find me.
[Nag Hammadi Codex 11.46]

On good authority the most common
terrestrial vertebrate in
this mostly wooded state of Maine
is the Red-backed (sometimes Lead-backed)
Salamander, *Plethedon cinerus cinerus*.

A small, squirmy, self-effacing
majority which must be
sought out. They do not volunteer
nor demonstrate, but lift a loose stone
or mossy log: they may be there.

Yesterday I split some junks
of wind-fall Maple to stack and dry
for winter fires. From the rot
and hollow heart of one
a wriggling *Plethedon* fell free.

In other pieces it was a beetle grub
or chaotic Carpenter Ants.
Whatever form they take I shake them off
to safety. I've no wish to test
their faith against the flames.

Split a piece of wood and I am there.
Lift up a stone and you will find me.

Lessons from Nature

— Ken Geiser, Ph.D.

I'm sitting in my garden watching a little spider among my plants. Yesterday I was in Boston surrounded by man-made materials, industrial pollution and consumer waste. But today in Sumner, all that greets my vision is a 200-year-old farmhouse, fields and flowers.

In the spider's web, a moose fly struggles vainly to escape the sticky strands.

This little spider has a lot to teach us. If our economies were just one percent as efficient as this spider's business, our wasteful ways would sharply decline. Think about it. The spider makes one of the strongest materials in the world by weight out of renewable supplies processed at normal temperature and pressure. Any waste left over is recaptured by the cycles of nature.

But in human society, we extract minerals from the ground, burn fossil fuels to make and transport our goods, and then carelessly discard most things after a single use. Our linear, energy-intensive processes consume and waste a vast amount of material. Less than three percent of what we start with is actually used and the rest is soon disposed. This wasteful pattern of production and consumption threatens the ecological and planetary support systems that sustain our life.

This afternoon I can hear the call of the loon from a nearby pond. This pond provides a quiet place for canoeing and fishing and serves as the drinking water supply for the local town down the valley. But, like many Maine lakes and ponds it is threatened by mercury poisoning from our polluted air. Indeed, the pond has been posted by an environmental group with a yellow sign flashing a toxic warning: "Protect Your Kids, Release Your Catch – Fish in Maine's Inland Waters Contain Mercury."

Toxic pollutants affect even rural Maine. Maine fish are tainted from the careless disposal of mercury-containing products that are burned in municipal incinerators, from distant coal-burning power plants, and from various local industrial polluters. Even though we know a great deal about the hazards of many highly toxic materials, we still use them and release them into the environment, causing them to build up to high levels in the food chain.

My farmhouse is old and humble, but it still sports its original pumpkin pine floorboards, more than two feet wide and smooth with age. Quite a contrast with the mound of disposable carpeting I saw last week stacked up outside a Boston office building, all rolled up and ready for the landfill. Instead of buying a disposable carpet, the building managers could have leased a floor carpet from a carpeting service. Interface, Inc., one of the country's largest manufacturers of office carpeting, now leases carpet tiles that can be replaced as they wear out and recycled back into a lower grade carpeting base.

Increase the efficiency of materials use. Reduce the toxicity of materials. Lease the services of materials instead of producing disposable products. Mimic nature. These could be the themes for a new century. The 20th century should have taught us that violating natural processes for quick benefits often leads to longer-term costs that can only vaguely be anticipated. This lesson was sharply demonstrated by hundreds of hazardous waste dump sites, smog-filled air sheds, and fishless rivers that ran rich in industrial discharges. In this century, we need to re-learn how to reconcile human needs with the limits of our natural world.

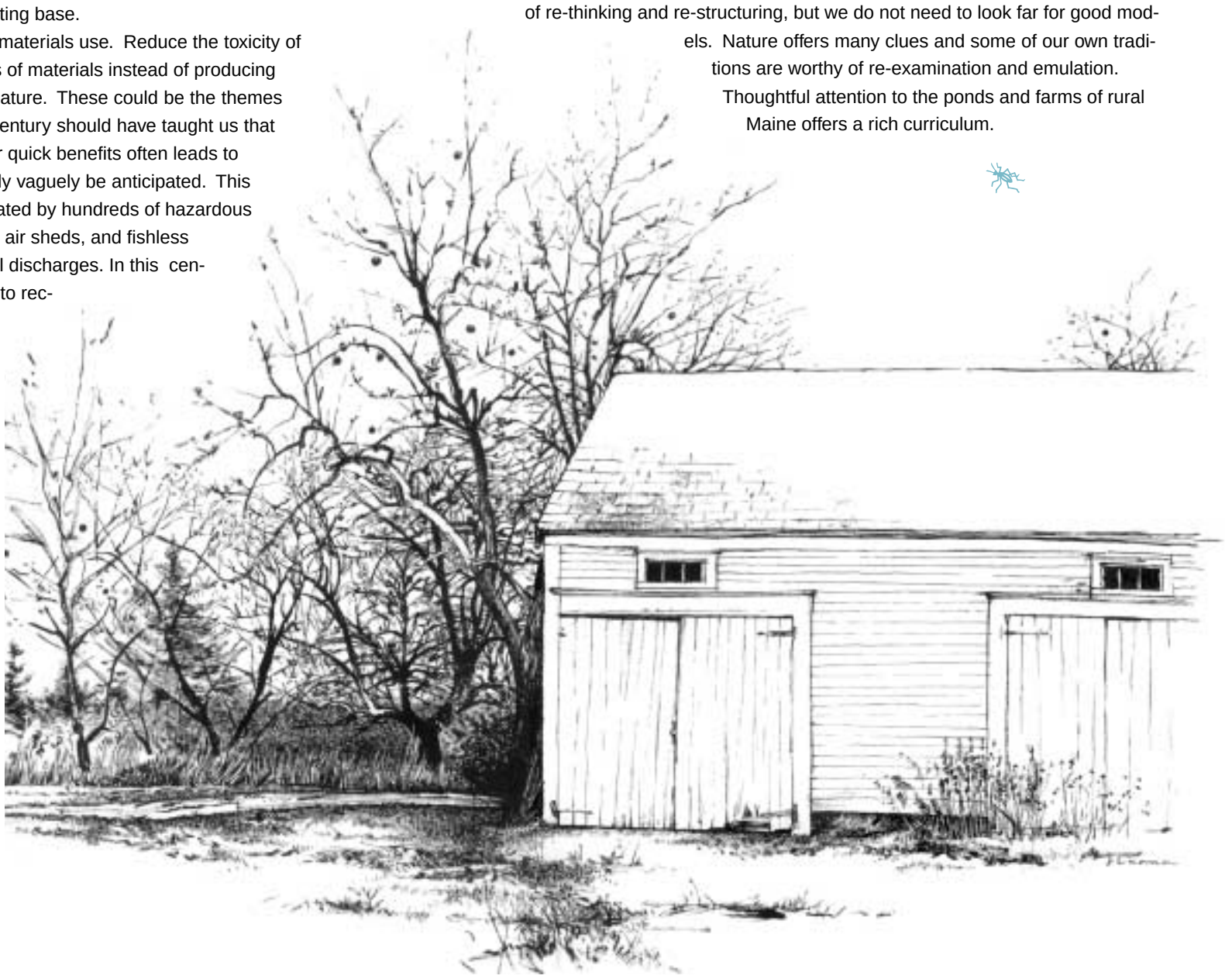
Some companies already are developing policies and practices that conserve energy, recycle materials, and replace toxic chemicals with non-toxic alternatives. Polaroid replaced mercury in its battery packs and most metropolitan newspapers have replaced their petroleum-based inks with inks based on soy oil. Today's Goodyear radial tires are 25 percent lighter and twice as long-lasting as tires sold two decades ago. Xerox offers a highly successful photocopier lease program that permits the company to take back its used products and re-use many of the parts in new machines. Gillette has reduced water use by 96 percent in the production of its razors and Baxter International has pledged to make medical products that are free of dioxin-creating plactics.

Some governments also are taking important steps to staunch the one-way flow of materials from nature to consumers to landfills. The European Union, for example, recently agreed to make carmakers financially responsible for recycling vehicles at the end of their consumer life, and is considering a similar requirement covering computers and other electronic products. Indeed, our own federal government has been directed by a Presidential Executive Order to give preference to environmentally-friendly products in its daily procurements.

But progress is slow and the dominant behavior in our society remains one of profligate disposal and inefficient use of materials and energy. We are not learning lessons from nature as rapidly as we should. Polluted water, contaminated air, climate disturbance, depleted soils, and biodiversity loss are symptoms of an economy that treats the environment as an endless source of resources and a continuously forgiving sink for wastes.

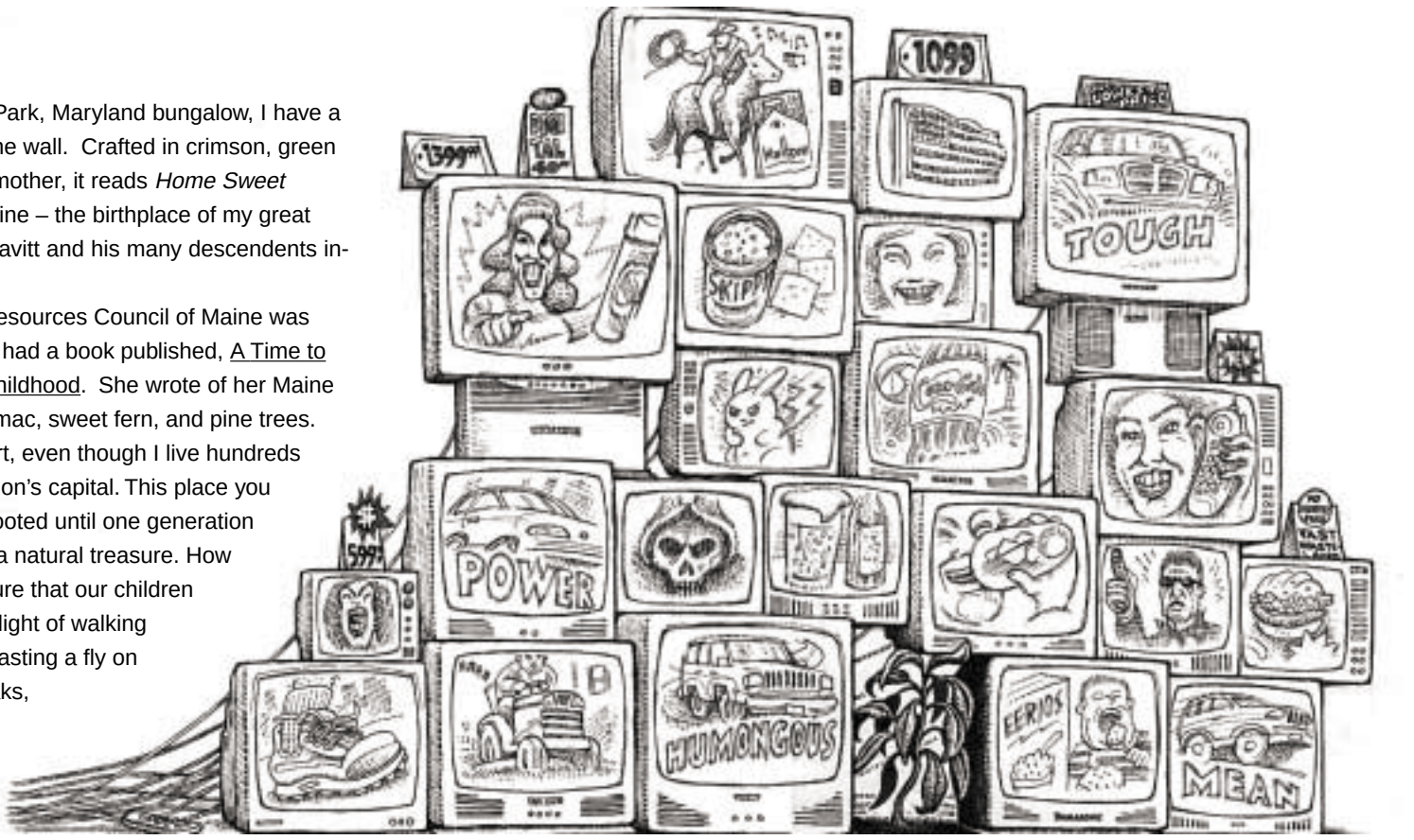
My neighbor uses baling wire and tape to extend the useful life of farm tools and equipment. He returns horse manure to the fields and avoids chemical fertilizers. He borrows his post hole digger and paint sprayer from local town folks rather than buying new ones. These are old traditions throughout rural Maine. Oddly, they are often more respectful of nature than their modern counterparts. They, also, are more often based on simple, natural metaphors such as recycling, conserving, repairing, sharing, and protecting. There is a lot of similarity between my neighbor and my little garden spider.

We can develop a sustainable economy, and, indeed, we must. It will take a lot of re-thinking and re-structuring, but we do not need to look far for good models. Nature offers many clues and some of our own traditions are worthy of re-examination and emulation. Thoughtful attention to the ponds and farms of rural Maine offers a rich curriculum.



Consumer Decisions as an Act of Conscience

— by Betsy Taylor



In the dining room of my Takoma Park, Maryland bungalow, I have a piece of needlepoint hanging on the wall. Crafted in crimson, green and gold by my great great grandmother, it reads *Home Sweet Home*. Home in her case was Maine – the birthplace of my great great great grandfather, James Leavitt and his many descendents including my father, Neil Taylor.

Four years after the Natural Resources Council of Maine was founded in 1959, my grandmother had a book published, A Time to Recall: The Delights of a Maine Childhood. She wrote of her Maine home – a world of blueberries, sumac, sweet fern, and pine trees. Maine is in my genes and my heart, even though I live hundreds of miles south just outside the nation's capital. This place you call home, where my family was rooted until one generation ago, is surely a sacred place and a natural treasure. How do we protect it? How do we ensure that our children and their children will know the delight of walking through the Great North Woods, casting a fly on the lower Kennebec as dawn breaks, and smelling wildflowers rather than auto fumes at Acadia National Park?

If we hope to keep the Earth in balance, we must ask, "is more always better?" No amount of regulation, policy reform, voluntary initiatives by business, or educational campaigns will be sufficient to protect our future without a fundamental examination of one root cause of our problems – human patterns of consumption.

Americans are consummate consumers. Typically, we don't think about the environmental consequences of building more and bigger homes, of purchasing more and bigger vehicles, and purchasing ever-larger televisions, sodas, burgers, and refrigerators. But there are hidden costs, huge ones:

- With less than five percent of the world's population, Americans consume over 25 percent of the planet's material resources.
- Since 1940, Americans alone have used up as large a share of the Earth's mineral resources as all previous humans put together.
- We use twice the energy and generate more than twice as much garbage as the average European. The typical American discards nearly a ton of trash per year.
- We consume 40% of the world's gasoline and own 32% of the world's cars.

In 1992, the Earth Summit held in Rio de Janeiro pointed to consumption and population as the two fundamental drivers behind environmental collapse. More recently, scientists issued a study indicating that if everyone on Earth consumed as the average American does, we would need four extra planets to supply the resources and absorb the waste.

Am I advocating hair shirts and candles? No. Am I asking us to pay attention to the unintentional but dramatic impacts of our high levels of consumption? Absolutely! Our future depends on it.

NRCM PHOTO ARCHIVES

So what can be done? What relevance does any of this have for Maine? First, consumption is not inherently bad. We need to consume to have a high quality of life, prosperous economy, and material security. But we all need to shift our consumption choices toward environmentally friendly goods while reducing consumption that is undermining the very biosphere we depend on for healthy living.

Change must occur in every sector of our economy. Individuals must learn to be wise consumers, recognizing that every single purchase we make, from cars to hamburgers, relies on chains of production that increasingly stretch around the globe. We need to learn how to resist the advertising that bombards us daily – from televisions, radios, magazines, sports events, and now even ATM machines and gas station pumps — beckoning us to buy things we don't need. We must teach our children that materialism is not the pathway to happiness.

Government must also become a model of environmentally conscious purchasing. State and local government agencies should buy products made from recycled content, using minimal energy and materials, and designed for reuse and repair. The state of Massachusetts is already shifting hundreds of millions of dollars in purchasing power to environmentally preferable products – from recycled paper to non-toxic cleaning products for state agencies

Business also has a vital role to play. Businesses and major organizations must consume wisely. Corporations should supply alternative products and services – from biodegradable plastics to homegrown shoes made from sustainably produced leather and biobased materials. The timber industry should comply with Forest Stewardship Council standards for sustainable wood production. The paper industry should eliminate harmful bleaching techniques and increase recycled paper content. Individual and institutional consumers cannot do the right things if environmentally friendly products aren't in the marketplace.

Ultimately though, this is not just about shifting the stuff in our lives. It is about our values, human aspirations, and personal relationships with a culture that says consuming is the true path to fulfillment. Our hectic work-and-spend way of life also takes its toll on our financial well-being, psychological health, and personal happiness. With the average employed American now working more hours per year than the average worker in any other industrialized nation, we have opted to take our extraordinary productivity in the form of more material possessions instead of leisure time.

Perhaps, in our rededication to this place we call home, we should look inward as well as outward. If we can get in touch with our non-materials needs – for love, community, positive relationships, service to others, music, story-telling, crafts, walks in the woods, time in the moonlight – we might be able to join together in creating living examples of another way. We might be able to have more fun with less stuff, while saving the planet in the process. This new dream is possible. What you do matters. For Maine to be magnificent in the next millennium, we must make each daily consumer choice an act of conscience.

The Deer

— by Jack Sherman
Age 13

What is that I ask suddenly as a brown object darts back into the trees.
The tires slide on the ground to stop us.
Suddenly the object darts back out.
Deer I think to myself.
We stop but not fast enough.
My dad inhales, a sshh.
Thud…the deer hits the fender of our truck.
Slowly I turn around.
There, lying in the road, is a white tailed deer,
one moment leaping gracefully,
the next dead.
Killed by man's invention.
My dad jumps out and pulls gloves on.
Stunned, I sit in the truck and wait.
I look in the field and notice something running,
A dog.
She must have been chased into the road.
I open the door and step out slowly.
I walk, almost frozen, to the side of the dead deer.

I Am Wild

— by Marley Witham
Age 9

Running.
Wind flowing
past my face.
I am wild.
I am free.

The new fallen leaves
are my path.
I turn a corner
and fly past the sparkling pond.
I am wild.
I am free.

I look up
at the sky
and the light
arranges itself
in a perfect pattern
between the leaves.
I run through a puddle.
It splits in a path for me.
I am wild.
I am free.

I see the lean-tos
and I throw myself
onto the grass.
I am wild
I am free.

Wanted: Heroes for Maine's Wildlands

— by Phyllis Austin

Every time I sit on top of an unprotected high peak or write about another blockbuster forestland sale, I dream of having the money to buy it. I think of what a privilege it would be to single-handedly underwrite restoration or preservation of an entire watershed or creation of a big wilderness park.

I use the word privilege because it means a "right, advantage or favor" granted an individual, and I believe that along with wealth comes the exceptional invitation to serve a purpose for the greater good.

By his deeds, Percival P. Baxter felt that the greater good was synonomous with a wilderness park for the people of Maine. For much of the 20th century, he dedicated his personal wealth and himself to the arduous task of amassing 200,000 acres of land for a "forever wild" park. For the times, even his idea of a wilderness park was unbelievably ambitious, some might say recklessly optimistic, given the industrial landowners with whom he had to negotiate purchase and sales agreements.

But Percy Baxter's vision was not to be denied. He saw far into the future, when logging, development and other human pressures would likely destroy the grandeur and natural riches of the Katahdin area. He stayed the course.

Baxter's legacy is legend among Mainers because he set an example of wildlands generosity that has remained unmatched by any other individual. I have found no answer to why Someone (or a number of Someones) of wealth hasn't followed in Baxter's footsteps or come forth with an even bolder initiative, given the accelerating decline of wild Maine.

While generous, high-profile private gestures in recent years have saved valuable and critical habitat, they have not been large enough to accomplish landscape conservation. Baxter remains in a class of his own. (Ironically, the late governor's gift was even too small to protect the park's entire watershed.) The conservation stakes of today are unprecedented, beyond what even Baxter could have imagined. The danger (and seduction) of continued incremental protection in Maine is too great to avoid the question of individual responsibility, especially with the glut of new millionaires and billionaires.

The old and the new private money are on a scale that could easily preserve whole ecosystems. Although millions of acres of the historic paper company domain have exchanged hands in the last three years, opportunities remain for fabulous individual philanthropy that really makes a difference. We must challenge the rich, the super rich, the venture philanthropists to respond — even to come forward without waiting for a conservation organization to knock on their doors.

A 21st century park or wilderness preserve that conservation biologists say is large enough to accomplish true ecosystem protection is the next frontier waiting to happen. The tens of millions of dollars given by individuals to schools, sports arenas and hospitals are important and admirable, but structures fall down. A large chunk of Maine's undeveloped territory remaining as wild, or wilder, than Baxter Park, could be Someone's greatest achievement.

Percy Baxter was driven toward his lofty goal by love - for the state, for the North Woods. He surely enjoyed the coast, but when he looked at Katahdin, the great mountain engaged his heart. He recognized himself as the right vehicle at the right time. His passion for what was a true calling gave him the patience and persistence to overcome formidable objections – a reality check that any grand idea must face.

Love also propelled Charles FitzGerald, arguably the most spirited wilderness visionary Maine has seen. With Baxter-like instincts, FitzGerald tried to accomplish a similar wilderness goal. But he lost his shirt in a failed deal to buy 60,00 acres of Diamond Occidental Forest's "highest and best use" lands in 1988. Some wealthy individuals chose not to bail him out at the eleventh hour because they had no particular relationship with those lands, and, for some, it takes a love of a particular place to evoke charity. With the help of a small but intrepid land trust, FitzGerald was able to achieve long-term protection of 10,000 acres in the Alder Stream watershed.

QUOTE BY H. D. THOREAU

It may take personal courage for someone to surpass Baxter's gift, since he is so revered. But it would be sad, indeed, for wilderness protection efforts to be suppressed by concern over stepping on Baxter's place in history. Surely there is room for many Percy Baxters in the wildlands philanthropy hall of fame.

Recent debate over large conservation and wilderness setasides shows the potential for political fallout from a magnificent individual donation. But again, Baxter showed that opposition was not a reason to shy away from doing what oughta be done.

Today, it's expected that an individual's charitable giving plan will be scrutinized by bean counters, stock brokers, portfolio trustees and family members who have an inheritance stake. After all that, I can guess that the odds of a great conservation project being funded privately are almost nil, except in unusual circumstances. So I suggest that anyone of affluence who wants to engage in direct land protection be led by the impulse of spirit.

If we can encourage and nurture the generosity of spirit with the generosity of wealth, we can stem the tide of wildlands and wildlife losses, as well as regain our hope.

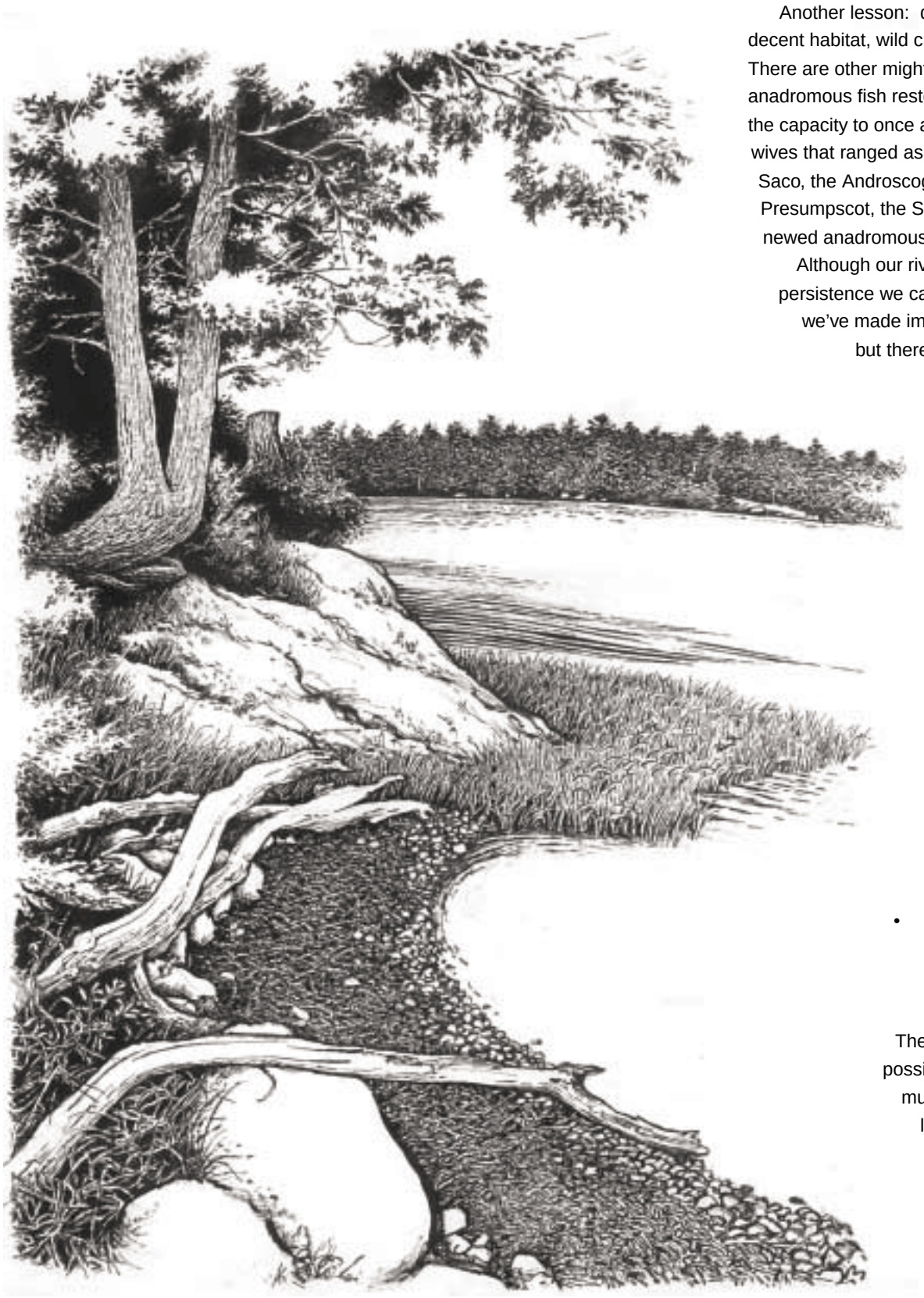
Lessons from the Kennebec

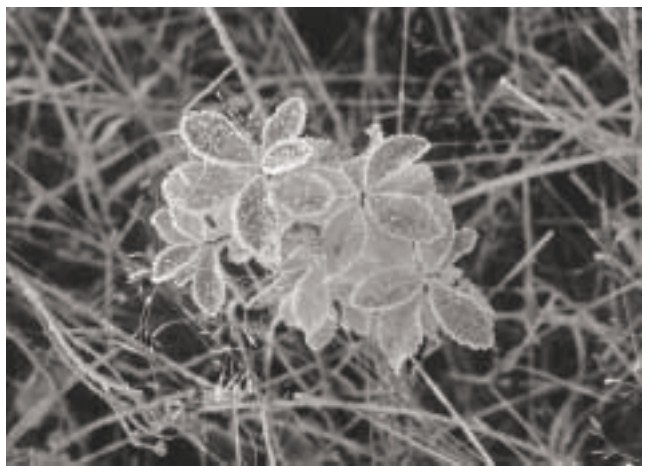
— by Clinton B. Townsend

As friends and colleagues well know, I love the Kennebec River – always have, always will. For the past four decades, I've traveled the Kennebec from source to sea, some parts many times over. But my admiration for this mighty river has grown even further in the past year, since the removal of the Edwards Dam on July 1, 1999. Since that spectacular day, I've spent a good bit of time in the stretch of river in the Waterville-Winslow area, and I've marveled at the river's rapid recovery from more than 160 years of impoundment.

Huge runs of anadromous fish on both coasts — fish that had inhabited North America's rivers since the retreat of the glaciers — have been sacrificed in rivers like the Kennebec as part of the price of progress. Politicians, administrators and entrepreneurs, with typical hubris, thought that they could ignore the problems, or compensate for the loss, of wild fish stocks with hatcheries. It was only at the end of the 20th century, when the public rebelled against the level of harm we were doing to our environment, and the hatcheries had failed, that we began to miss what had been lost in our rivers.

Construction of the Edwards Dam in 1837 slowed the Kennebec's flow and prevented nine species of anadromous fish from reaching prime spawning ground above Augusta. In 1988, that story began to change. A handful of concerned citizens envisioned what a free-flowing Kennebec might look like. They believed it was possible to force the dam's removal by convincing the Federal Energy Regulatory Commission that the value of a restored fishery would outweigh the economic benefits of a dam producing only a small amount of electricity.





When they started their crusade, few believed they could succeed. Most people seriously doubted whether a major dam would ever be removed from a major river in North America. To succeed would mean changing the thinking of state and federal governments, as well as the public at large. It would take them over 10 years, but they did it. One lesson of the Edwards Dam Removal story: a few persistent people with a vision can make history.

With the breach and removal of the Edwards Dam, the Kennebec River now flows free from Waterville to the Atlantic Ocean, a distance of about 60 miles. After only one year, biologists are rejoicing over the improved water quality in the stretch of the river upstream from the former dam. Species of invertebrates — such as mayflies and stoneflies — that were suppressed in the impoundment, have made a dramatic comeback. And then there's the fish: striped bass, American shad, alewives and sturgeon are returning to the river. I know, because I've seen and caught some.

Another lesson: despite human impacts, nature is enormously resilient. Given decent habitat, wild creatures have a tenacious ability to survive, and indeed, thrive. There are other mighty rivers in Maine with as great a potential as the Kennebec for anadromous fish restoration. Notable among these is the Penobscot, which has the capacity to once again host the runs of Atlantic salmon, shad, sturgeon and alewives that ranged as far upriver as Indian Island in Old Town. Major rivers like the Saco, the Androscoggin and the St. Croix, as well as lesser rivers such as the Presumpscot, the St. George and the Union, are all capable of supporting renewed anadromous fish runs.

Although our rivers have been hideously abused for a very long time, with persistence we can create a different future for them. The lesson here is simple: we've made important progress in reducing harm to some of Maine's rivers, but there is much more work to be done. Specifically, we must:

- Bring close scrutiny to other dams in Maine and vigorously work for the removal of those where – like Edwards – the environmental benefits of removal exceed the value of continued operation of the dam.
- Curb the impact of poor forest management practices on our rivers, where erosion and siltation are degrading water quality, and overcutting of the forest canopy along streams is causing a change in water temperature and the loss of cold water fisheries;
- Require improved agricultural practices, including better streamside buffers and a prohibition on allowing livestock to cross small streams so that they can graze on both sides.
- Control water withdrawals for irrigation of blueberry crops, potato fields and for golf courses and snowmaking, so that we maintain at least the minimum flows necessary to protect fisheries habitat.
- Drastically reduce paper mill pollution to our rivers, which continues to degrade water quality, and also non-point source pollution generated by urban development and sprawl.

The successful removal of the Edwards Dam has taught us that possibilities for improving our environment lie all around us. We must be alert to spot them and eager to participate in them. My lifelong relationship with the Kennebec River has also taught me a great deal about the beauty of Maine, the power of nature, and the importance of fighting to realize a dream.

Restoring the Connections Between Land and Sea

— by Douglas Watts

One of the first survival lessons Native Americans taught New England's European settlers was to place a fresh sea-run alewife atop each hill of corn as fertilizer. Until the early 19th century, migratory fish including alewife, salmon, and shad ascended literally every river and stream in Maine, bringing nutrients and energy to lakes and ponds hundreds of miles from the ocean. With the construction of dams and subsequent collapse of migratory fish runs, however, our oceans and uplands have been cut off from each other. One of the great challenges of the new millennia will be to reverse this damage.

There are two primary sources of energy in New England's ecosystems. Photosynthesis on land (via plants), and photosynthesis in our oceans (via plankton). Oceanic plankton cannot fly, cannot walk, cannot swim any distance and cannot survive in freshwater.

Nature moves tiny ocean plankton inland via the bodies of sea-run, ie. migratory fish. Migratory fish species consume ocean and estuarine plankton, or they eat other creatures that eat the plankton. All sea-run fish require access to freshwater, via rivers, to spawn and complete their lifecycle. Together, the dozen migratory fish native to New England use nearly all of the habitat in a river system for some part of their lifecycle. Take away the native migratory fish species from our rivers and what remains is threadbare: white suckers, yellow perch, inland brook trout, a few small minnows. By species and numbers, most of the fish native to Maine's river systems must travel to the ocean and back to exist.

One can perform a rough calculation of the amount of ocean energy historically transferred each year into Maine's largest watershed, the Penobscot, which covers nearly one-third of the state. Based on habitat quantity and historic commercial harvests it can be conservatively estimated that 10 million migratory fish of various species traveled from the ocean and dispersed into the Penobscot River watershed each year, with a total weight of more than 15 million pounds. This weight is the ocean energy of Penobscot Bay (rainbow smelt and tomcod), the Gulf of Maine (alewife, blueback herring, sea lamprey), the Bay of Fundy (American shad) and the Labrador Sea (Atlantic salmon). Each year this influx of far-flung ocean energy became readily available to the inland species of the Penobscot River watershed.

Except for the upper St. John and the Androscoggin above Rumford Falls, all of Maine was historically nourished partially or predominately by energy delivered from the ocean. Today, because of a frenzy of dam building in the 17th, 18th, 19th, and 20th centuries, most of the annual nourishment of Maine's inland environment from the ocean has stopped.

The impact of the almost total loss of this ocean energy to Maine's inland environment has never been comprehensively studied. But it has in the Pacific Northwest. In a paper published in the January 2000 journal of the American Fisheries Society, researchers calculated the historic quantity of ocean energy delivered to inland ecosystems there by five species of Pacific salmon. They identified 22 animal species on Washington's Olympic Peninsula that feed on Pacific salmon or their carcasses. They calculated the amount of a key nutrient — marine derived nitrogen — delivered to inland ecosystems by Pacific salmon, their eggs and carcasses. They found that the influx of ocean energy to freshwater streams via decaying salmon carcasses increased numbers and growth rates of juvenile Pacific salmon compared to stream segments with no salmon carcasses. In conclusion, they posited that Pacific salmon, the predominant migratory fish of the Pacific Northwest, are not an accessory to the region's freshwater ecosystems, but a key, underlying component of its energy base.

Today, most people view the marine and inland regions of Maine as totally separate places, isolated from each other in form and function. In fact, they are as intimately connected as a tree to its soil, a mountain to its valley or a river to its floodplain. This connection is not one rooted in romanticism, but in physics and the transfer of solar energy from the ocean to the land. The vehicle of this connection in Maine is our rivers and their migratory fish.

This connection is also rooted in our history, albeit history now forgotten. Few know that the harvest of migratory striped bass funded the construction of some of the first public schools in New England; that Delaware River shad kept George Washington's army from starving; or, that in 1809 the selectmen of Benton, Maine ordered a mill dam torn down because it blocked the Sebasticook River's enormous runs of alewives and shad.

It is not trivial that a wide spot on the West Branch of the Penobscot in the heart of Maine's North Woods is named Shad Pond; that the bulk of all the fish species native to Maine's rivers must have access to saltwater to survive; or, that a great blue heron on the Sebasticook River, 100 miles from the ocean, spends nearly three months a year subsisting on fish flesh built from oceanic plankton.

These examples amply illustrate the fundamental connection between Maine's marine and inland environments. It is a connection that has been almost completely broken in our state. It is a vexing one because most Maine citizens have no idea this connection ever existed, that it is broken, or what they and their children have lost as a result. It is a connection that needs to be recalled, studied, publicized and fixed.

Fish Dreams

— by Sherry Ballou Hanson

Once the Kennebec teamed with fish.
Bass and salmon rippling
down river to the sea,
their bright and shining shapes
spilling everywhere

until the mills and the stink.
We didn't know, they said,
in the sun's grace
leaves falling softly on her banks,
branches dangling January's moon
season to season, we didn't know.
Fish their own council,
but beneath those waters
their screams must have echoed
as far as water goes

until one day
an ancient sturgeon swam upriver
salmon too, and the bass came back.
We dream again of silver fish
wriggling in the net,
pouring into the sea.

Planet Earth on Life Support

— by Paul Liebow, M.D.

Our lovely Mother Earth is now a patient in the emergency room. Her delicate lungs are congested with smog and soot. Her beautiful blue veins are filling with sediment and polluted run-off. Her emerald skin is rent with the sores of strip mining and unsustainable agriculture and forestry. Her pulsing arteries bleed out resources that will never be renewed. Millions work feverishly to save her. As a career emergency physician, I see many parallels between the environmental movement and emergency medicine.

Every emergency room is guarded by huge pneumatic swinging doors, so poignantly described by emergency physician Mark Brown, in his introduction to Emergency!". They suddenly burst open with a "hiss" that heralds every catastrophe knowable by mankind – a baby that isn't breathing, a woman screaming that her husband is in cardiac arrest in the front seat of the car, a swearing and fighting prisoner with multiple stab wounds and high on drugs.

Problems likewise burst suddenly onto environmentalists. They may be sinister legislative initiatives intended to circumvent environmental laws such as oil-drilling on the Arctic Caribou breeding grounds, ill-conceived construction projects like Dickey-Lincoln, or the discovery that only a handful of Atlantic Salmon returned to eight Downeast rivers last year. Opportunities to be proactive about problems that have loomed for decades, such as global warming, may come just as suddenly. I am proud of the resilience and skill with which environmentalists respond to such problems. That's probably why I feel at home in both worlds.

In both worlds, we engage in daily combat with implacable foes, always in emergency, if not disaster mode. There are never enough resources, enough time, enough science, enough documentation, enough rest. Their ghosts sit on our shoulders, while we triage which species or which patients we can save, which will die because of a lack of resources or miracles, and which we must try to save even though they are probably already mortally wounded.

We function as tightly choreographed teams where everyone must work harmoniously but independently, fueled by pride and duty. We must be inner-directed because things happen too fast for anyone to command and control. We work arm in arm with people we might not ordinarily befriend. We must deal calmly with people at their worst — unpleasant people, in unpleasant situations. We often have to tell people what they don't want to hear, and quietly withstand verbal abuse and threats. We must always be gentle, for people we are at odds with one day, may be our allies the next.

We must approach every day with a fresh and positive attitude, knowing we won't win every battle, but that we can go home feeling good if we did our very best. We must recover and move on immediately after defeat, because other patients and issues desperately need us. I'll never forget one Superbowl Sunday when I had to tell two young families within an hour that their father was gone — and then go right in to see the next patient. There is no time to cry with the families, and no time to cry for the Dusky Seaside Sparrow.

We never know what will come through our doors, only that it will come at an inconvenient time and be charged with high emotion. Through the doors will come problems we never even imagined, our assaults on nature such as "genetic engineering," or new assaults from nature such as HIV. Our best science will be called "junk science," because it can never be the perfect double-blind controlled studies on humans possible only in totalitarian regimes. We have to combine the best available science with the "Precautionary Principle," first expressed as "Above all, do no harm," in the Hippocratic Oath.

We have to use our wits, and gut feelings derived from years of experience, to make split second decisions that solve problems we've never seen before. We must remain lifetime learners, for the pure joy of learning, to be effective advocates.

"The doors also take people out — sometimes relieved, sometimes angry, sometimes with unknowable grief, and sometimes dead."[1] We must not let the doors take us out before our time, consumed by the searing heat of our passion. We must avoid "burn-out" by learning to leave our work behind us, say "no" to some projects, and protect family and personal time, so we can have a lifetime of usefulness.

There are other similarities. In the ER we use machines for artificial life-support to replace or rest organs while they heal, or as a "bridge to transplant." Even transplants are only bridges to better transplants. Many people live tenuous shadow lives, waiting for the wizards of technology to invent, test, and perfect new cures.

We live in an era when life supports are needed to bridge us to a sustainable society. But Band-Aid solutions often seem most appealing to those who wish to delay real solutions to systemic illnesses. For many species and ecosystems at risk, technology will buy precious little time. Some proposed "solutions" are indeed farfetched. A Texas company hopes to blast pollution into the stratosphere, when what is really needed are controls on smokestack effluents. Refrigeration systems are being placed beneath the Alaskan oil pipeline to prevent it from sinking into the permafrost, as global warming advances, when what is really necessary are deep reductions in greenhouse gas emissions. Fuel cells are promised to eliminate pollution from cars, yet support for mass transit falters. Genetic engineering is touted as the solution to world hunger, while little is done to ensure a sustainable population for our planet.

Life supports cannot substitute for preventive care. Intelligent citizens know what needs to be done to protect the Earth, just as they know that exercise, healthy eating, routine exams, and avoiding cigarettes give us longer, happier lives. But emergency physicians and environmental advocates can only do so much. Ultimately, we must all share the responsibility for the health of our planet. Placing Mother Earth on life support indefinitely is not an option.

[1] Brown, Mark, "True Stories from the Nation's ERs," St. Martins Press, 1996.

The Complexion of Evening

— by Audrey Stoltz
Age 13

The golden glow of the sky
draws me to a window.
A mix of colors swirls
around
the horizon –
amber,
orange, coral pink –
that leads to the
dark blue of
evening.

A few dim stars linger, awaiting the
darkness
like fireflies in the warmth
of a June night.
I watch the aura of the sun
fade behind the trees.
Black, colorless silhouettes
of seagulls appear
in the mess of colors.

And I wonder,
what magic molds such
elegance?

Coming To

— by Philip Booth

Coming to woods in light spring rain,
I know I am not too late.
In my week
of walking down from White Mountains,
I dreamt I might die before
familiar woods woke me.
Come slowly,
the way leaves come, I've arrived at
their turnings: from bronze, gold, wine,
to all greens, as they let sun in
to tug them toward light.
Come again now
to woods as they've grown, hardwood
and soft, birch, hemlock, and oak,
I walk into my boyhood,
back to
my mother,
the mother who took me in hand
to steer me across back fields to the woods.
Over and over, she slowed to give me
the local names: swampmaple, shadblow,
hackmatack, pine.
Given those woods,
trees renewed in me now, I've begun
to know I'm older than all
but the tallest stands.
Under trees,
I discover my mother's old namings
beginning to bloom: bloodroot,
hepatica, bunchberry, trillium;
in air
so quiet the flowers barely move,
I shiver a little, over and over.
I listen to troutlily, violet, jack-
in-the-pulpit, spring beauty.

I let my head bow as I name them.

The Logging Sled

— by Kate Barnes

I catch a ride on the logging sled and go out to the woods.
As we cross the deep-drifted field, we see five snow geese
high overhead, flying almost confusedly.
It's early yet, the lake is still frozen tight
with trucks on it; the geese must be casting about
for open rivers north of us.

In the clearing
I step up to the horses' heads and stand with them
while the sled is loaded. I am as gray and heavy
as a badger, the pockets of my old coat sag
with carrots and books. The horses nose at my hands,
the wood thunks onto the sled, and I hear the blue jays
squalling behind me among the pines; I smell
a dampness in the air that promises spring.

To whom can I say how happy this all makes me?

Through the Eyes of Morning

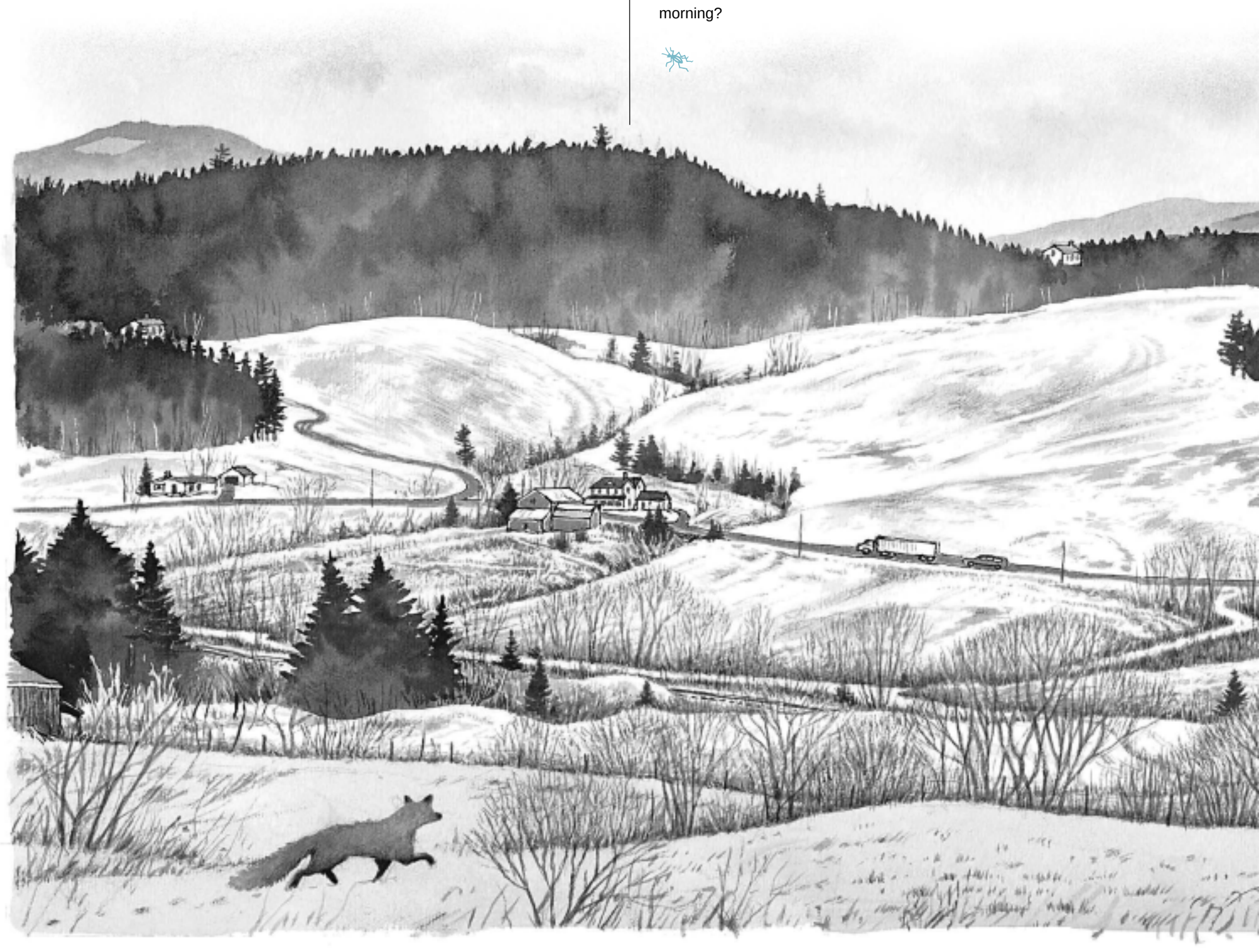
— by Anne Atwell-McLeod
Age 14

The long
complicated
elements of morning
drape themselves across the dew touched meadow
as if they are
lace
from the intricate garments of a queen
who has chosen
this moment
to blow a frosty kiss to her people through the fog
so intensely ghost white
that if you look deep enough
you can see yourself.

And so I look.
Deep.
Hoping that if something as simple
yet intense,
as young
yet ancient,
as morning
knows who I am, maybe I will too.

But I only see the dew.
And the fog.

And who is anyone
through the distorted eyes of
morning?



Driving to Dark Country

— by Wesley McNair

Past where the last
gang of signs

comes out of the dark
to wave you back,

and past telephone
wires lengthening

with the light of someone
beyond the next hill

just returning,
a slow, single line

will take the eye
of your high beam. Around you

will be jewels
of the fox-watch.

Great trees will rise up
to see you passing by

all by yourself,
riding on light.

How to See Deer

— by Philip Booth

Forget roadside crossings,
Go nowhere with guns.
Go elsewhere your own way,

lonely and wanting. Or
stay and be early:
next to deep woods

inhabit old orchards.
All clearings promise.
Sunrise is good,

and fog before sun.
Expect nothing always;
find your luck slowly.

Wait out the windfall.
Take your good time
to learn to read ferns;

make like a turtle:
downhill toward slow water.
Instructed by heron,

drink the pure silence.
Be compassed by wind.
If you quiver like aspen

trust your quick nature:
let your ear teach you
which way to listen.

You've come to assume
protective color; now
colors reform to

new shapes in your eye.
You've learned by now
to wait without waiting;

as if it were dusk
look into light falling:
in deep relief

things even out. Be
careless of nothing. See
what you see.

A Day Like This One — A Letter to My Daughters

— by Janet McMahon

Dear Josie and Sophie,

As most mothers do, I often wonder what the world will be like when you are as old as me. It's a warm summer evening and I'm sitting on the porch swing, under a cathedral of oaks. I need a frame of reference to imagine your future, so I'll describe what I saw and heard on a typical day in a typical forest in midcoast Maine. Maybe one day, when I am an old woman, we can sit down – here, or somewhere far away – and talk about how the land has changed.

This is how I spent my day. After breakfast, I headed out to a 150-acre piece of land east of the Camden Hills. I took my knapsack, a compass, a topo map, a pencil and notebook, a tree corer, some plant books, lunch, and my pack canoe. I was asked to walk the property to look for rare plants, see if there were forests that had never been cut for timber, and describe the wetlands I found.

It was the kind of day we live for in Maine – not too warm, sparkling blue with fluffy cumulus clouds, enough wind to keep the mosquitoes and black flies at bay. I wanted to explore an open sedge meadow, so I dragged my canoe a half-mile through the woods to an old mill dam on the stream that flows through the marsh. The stream meandered through dense tussocks of sedge and blue-joint grass, clumps of royal and cinnamon fern, and thickets of sweet gale and alder. I had to carry the canoe over four beaver dams before I came to an active beaver lodge that was taller than I am. As I paddled, clouds of minnows exploded with each stroke. Eight ospreys were fishing this stretch of stream along with a hopeful bald eagle looking for an easy meal.

As the stream slowed behind a beaver dam, pickerelweed and masses of flowering yellow water lilies erupted with the squeaks of startled green frogs. I drifted for a while, listening to the low "mmmmaaaaaa" of a bull frog in the distance. It was early and a host of warblers was singing – yellowthroat, chestnut-sided, yellow, black-throated green, and half a dozen others. A swamp sparrow, nesting nearby, chipped its song and red-winged blackbirds announced their territories. Tree swallows flitted over the marsh feeding on flies and mosquitoes. A flustered black duck flew off and a loon called. Soon the stream quickened to whitewater. A hooded merganser and her brood gracefully navigated through the rapids, and were lost from view.

I pulled my canoe onto the stream floodplain and had my sandwich under red maples and spruce. Here is an entirely different mix of plants and animals. Hovering over the rapids were dozens of dragon flies. I counted six different kinds in a feast of colors – vermilion, sky blue with black stripes, turquoise, shiny black with white wings, emerald green, iridescent blue. The ground was lush with lady fern, wood ferns, lacy horsetails, jack-in-the pulpit, cushions of mosses, marsh violets, and two kinds of delicate orchids just about to flower. Ten yards from the stream, the air was filled with a new suite of songs, including my three favorites – the melancholy arpeggios of the wood and hermit thrush, and the winter wren with its endless song. These mingled with the songs of a veery, an ovenbird, a black-throated blue warbler, and a scarlet tanager.

After lunch I walked a compass line to a spruce swamp at the edge of the property. I passed pileated woodpecker holes, fresh moose scat, two leopard frogs, and a wood frog. Before long, I was slogging over hummocks of sphagnum moss, hopping over hollows of water, and swatting mosquitoes. The spruce canopy opened up and the swamp graded into open shrub bog. I love the wild smell and feel of bogs. Again, everything was new. Fuzzy Labrador tea, sheep laurel, rhodora, with its bright magenta flowers, snowberry, tiny white bell flowers of leatherleaf, and a new, not very happy looking black spruce ragged with old man's beard. Bogs are so quiet. In the heat of mid-afternoon, the exquisite refrain of one white-throated sparrow was the only sound.

I followed another bearing back to the canoe. This time through an open forest of red oak and white pine. It was easy walking. The ground was blissfully dry. Low-bush blueberry, bracken fern, sarsaparilla, bunchberry, and patches of huckleberry were crunchy underfoot. I passed what looked like fisher scat, plenty of white-tail deer sign, and some patient scratching in the duff revealed two red-backed salamanders.

It was now late afternoon and time to make sense out of what I'd seen. The forest was not unusual. I'd taken a couple of tree cores and determined the spruce swamp and pine-oak forest to be between 80 and 100 years old. I passed one foundation, several short stretches of stone wall, two rock piles, and the breached mill dam. Like so much of the midcoast, the forest had come up from rough pasture cleared in the 1800s and abandoned around the turn of the last century. The forest that had grown back had been partially cut a couple of times since then.

And yet, the forest was healthy and vibrant – filled with hundreds of different kinds of plants and animals. I counted 38 kinds of birds, 31 kinds of trees and shrubs, 98 kinds of herbs, and all kinds of wildlife signs just in one day – and there were many more species that I couldn't identify. Although I found nothing rare, there were remarkably few species that didn't belong. There were no cats or cowbirds, and only a handful of exotic plants near a road.

My job is to separate things into categories and catalog what grows on the land. But the pieces that make up the landscape seem so much less significant than the landscape as a whole. Except for an old woods road, the forest was unbroken. It was deep enough for forest songbirds, moose, and fisher. There were no hard edges – the transitions between forest and wetland were gentle. So much quiet and space – space enough to get lost in. And at the edge of the land I was exploring, were hundreds – maybe thousands – of acres of forest like this.

It is human nature to cherish the familiar landscape of one's youth, and this is the landscape I cherish. I wish each of you a day like this one.

Mamma

June 14, 2000

Protecting the Earth From Ourselves

— by Lani Graham

Lately I have been studying the challenges that Native Americans have faced over the last four centuries of our occupation of this land. The losses endured have been staggering. It has, for the most part, been a real holocaust. What has survived our domination remains as a haunting reminder of how much was lost for such little gain. As I consider today our careless approach to this planet, I see many parallels. The real enemy is always ourselves. Permanent destruction is justified in the name of progress and economics. The future is traded for the present.

Our battle now for the environment seems similar. The people who pollute our air and water, who replace plant and animal habitat with houses, shopping malls, and roads are just that – people. They are acting inside an irrational culture that puts no dollar value on the natural resources that sustain us, and considers non-human living systems relatively unimportant in the face of today's human wants. But, like our approach to Native Americans, the losses can be enormous, the changes irreversible.

How ironic it is that a species on earth must tremble on the brink of extinction before it's survival needs are considered worthy. It is essentially the same standard we applied to Native Americans, and it has not served us well. Yet "doing the right thing" for our environment is difficult even for those with the best intentions, because our culture and laws do not support us well.

As a public health physician, I see firsthand the impact of today's dominant culture on human health. I know how important every private action is, yet reducing the impacts of individual actions is a constant, usually unnoticed, struggle.

I have a young friend who has made the choice not to have a car so that she will not add to air pollution. She goes everywhere on a bicycle, a wonderful example for us all. But I cannot bring myself to follow her, even as I bemoan the rising price of fuel. I have sprayed trees on my farm to kill caterpillars, not using the best technique. I have thrown things in the household trash that I knew should go elsewhere, but I wasn't sure where—examples of daily compromises that a well-meaning person makes.

Over the last few years I have watched my childhood home, which used to be "way out" in the country, become part of an emerging residential development. Many of my neighbors have sold their woods and fields for house lots making fortunes in the process. Who can blame them? The tax reduction that comes from a conservation easement doesn't put the kids through college nor make for a totally comfortable retirement, unless you happen to be wealthy in the first place. It's easy to rationalize the presence of one more house on the waterfront, especially if it's my house or my profits.

This summer I watched an Osprey wheel and cry in misery as the trees on my neighbor's property were cut, but there was nothing I could do. My neighbor was well within his rights.

We value wealth and property. The dominant culture does not view my friend on the bicycle as a model to emulate, but as an eccentric who probably would have a car if she could afford one. My neighbor made a rational choice to sell his property so that he could enjoy a comfortable retirement – a decision that most Americans can understand even as they express concern about the destruction of osprey nests or the vanishing green world.

It is quite clear that more education and voluntary choices, while absolutely essential, won't come close to doing the job. In the battle against ourselves, the immediate perceived "good" for the individual, family or business of today weighs heavily against the good of both individuals and the community of tomorrow. Through a certain amount of well-planned coercion, we have made progress in preserving our environment, but the long-term prospect is not good. Our greatest challenges lie ahead of us, not behind us. The population of the world is on an exponential growth curve as is chemical development. There will be ever-increasing pressures on our environment. We must do much more. At every level of society we must redraw the boundaries of our lives to include the value of ecosystems and a healthy environment, and we will need tough laws and tough enforcement to protect those values.

I read of a tribe in Africa that only gave the death penalty for water pollution. The murder of an individual was considered serious, but the destruction of what gave the community life was viewed as catastrophic. It made sense to me. Our best laws are written on the solid foundation of self-awareness to protect us from our weaknesses and maximize our strengths in the interest of our future, as well as our present.

The earth we love is like the weakest among us. We must protect it from ourselves through legal and judicial systems that stand firm against the power that can be mobilized when immediate self-interest blinds us to the future and the common good. Our health and world depend on it.

Toward a New Relationship With Our Oceans

— by Louis (Sandy) Sage

NRCM PHOTO ARCHIVES

As we look to our oceans we see a seemingly endless resource: an enormous and immutable expanse of blue extending to a distant horizon. It is easy for some to believe that, despite what humans may be doing to the land and inland waters, our oceans are at peace, protected by their sheer volume from human disruption. While this may have been an understandable perspective in the past, it is changing fast as we are becoming more aware than ever before of the enormity of pressures that society is creating on the health of our oceans.

Our oceans are a vital food source for humanity, supplying approximately 20 percent of the world's population with their only source of protein. Oceans cover 71 percent of the Earth's surface and provide 95 percent of all known habitat on earth. Think a moment about that last statistic. Ninety-five percent of all known habitat on earth lies within an ocean environment. We know a great deal about marine life and the variety of life that lies within our oceans, yet there remain countless unknown biological wonders that we are only beginning to comprehend.

The National Academy of Sciences recently issued a report documenting the rich biological diversity in the world's oceans and identifying the long-term importance of sea life to humanity. The economic value of commercial fisheries is well understood. What is less known, however, is the potential for new pharmaceuticals and natural food products from microscopic biological life that are largely unexplored. It has been estimated that up to 75 percent of the cancer-fighting drugs available in 2025 will come from the sea – dwarfing what is expected from species in the tropical rain forests.

Satellite imagery has helped us to document that the Gulf of Maine has some of the most biologically productive waters in the world. As such, this region should have a special interest in the long-term condition of our oceans. As we've experienced in the past, when a marine fishery is depleted, the economic impacts can be severe. Similarly, to protect future options for sustainable businesses based on sea life, our oceans must receive our care and attention.

The oceans are the first and last stop in the hydrological cycle that starts as moisture in the clouds and falls as rain on the surface of the earth. On land, most of this moisture finds its way to surface streams and rivers and ultimately to the continental shelf and then the open seas. During this journey, the water picks up society's wastes, from septic systems, agricultural and industrial activities, and generalized runoff from land.

Pressures on the ocean from coastal residences is increasing, as more of America seeks to live by, or have a second home within reach of, the sea. In 1985, 45 percent of our national population lived within 100 miles of the coast. By 1998, that figure had risen to 55 percent and by 2030 the number is expected to reach 75 percent. The migration of people to the coast is putting enormous pressures on our coastal water resources. If we care about our oceans, then we will have no choice but to reduce the individual impact of each of us living within coastal zones.

For the last 25 years, pollution control efforts have focused primarily upon cleaning up our wastes on land and in our rivers, lakes, and coastal estuaries. In the last decade, however, we have developed a deeper understanding of the impacts of air pollution on human health and aquatic resources. In the Chesapeake Bay area, nitrogen pollution is the cause of significant water degradation that has threatened the commercial fishing industries. Although farmland application of fertilizers has been identified as a major source of this nitrogen, we know now that almost an equal amount of nitrogen to the Bay comes from air pollution in the form of nitrogen compounds captured in rain. The source of this nitrogen is nitrogen oxides released through the combustion of fossil fuels for power and transportation.

The volume of nitrogen pollution to our oceans will increase dramatically during the next 20 years, according to a group of international atmospheric and oceanography experts, termed the **S**urface **O**cean—**L**ower **A**tmosphere **S**tudy (SOLAS). This group looked at the rate of deposition from the air of reactive nitrogen (as in fertilizer) in the year 2020, compared with concentrations measured in 1980. A few areas of the world where developing countries are increasing their agricultural output will experience a quadrupling in nitrogen. For the oceans as a whole, most areas will face a doubling of nitrogen inputs.

Maine currently has a relatively undeveloped coastline with relatively clean and productive coastal waters, but development is increasing and there is reason to be concerned. According to a recent study by the National Oceanic and Atmospheric Administration, more than half of the estuaries examined along the coast of New England show moderate to high levels of nutrient pollution, observed in the form of excess algae, a change in algal species or the relative number of species of algae, or lowered levels of oxygen in the water. Additional development along the coast is almost certain to cause further degradation of our estuaries, as fertilizers are applied to new lawns, petroleum products are washed off of additional driveways, and other forms of pollution are carried to the sea – the ultimate sink for all our activities.

During the past decade, a growing number of people have begun to see their activities as occurring within the boundaries of a watershed. This is a very positive development and holds great promise for the protection of inland waters. The next big challenge will be for us to understand our individual responsibilities as stewards of the earth's oceans. The energy we use in our homes, the activities we undertake in our yards, the places where we build and the safeguards we choose to enact from the local to the national levels all will have an impact on the future condition of our magnificent oceans.

Reflections on a Threatened Bog

— by Bonnie Lounsbury

You may have driven by without noticing the bog. I did, dozens of times, and so do hundreds, perhaps thousands, of people each year. Encased in our vehicles, we may see—but cannot read— the clues: dead end signs at the intersections of streets; an engineered berm by the side of the parkway; a muddled green mass in the background as if someone had dipped a brush in three shades of green and dabbed it on the sky.

Garcelon Bog is, to most people who live here, the sort of place that one can behold without realizing it. That is how I arrived one afternoon a year ago, searching for a place I had heard about, not sure that I had succeeded in finding it.

In fact, Garcelon Bog in Lewiston is a rare place, a 160-acre completely undeveloped bowl that supports forested wetlands dominated by conifers, deciduous forested wetlands, several varieties of scrub-shrub wetlands, and several varieties of emergent wetlands. During a two hour walk one July afternoon this year, members of the Josselyn Botanical Society identified 15 species of trees; 34 shrubs, many fruitbearing; 41 herbs; 31 mosses and liverworts; perhaps a rare sphagnum moss; eight ferns, 24 grasses, sedges and rushes; and, surprisingly, very few invasive species.

They also looked for wildlife and found 27 species of birds, 24 of which were nesting, as well as frogs, snakes, deer, and butterflies...a marvelous diversity of species and habitat for any bog. For this to be embedded in the second largest urban area of the state is extraordinary.

But there are others besides botanists who know that the bog exists. It is the target of the city's campaign to create a new highway linking two major roads so that traffic may travel more expeditiously to malls in Auburn. It is the cause for a $300,000 fee to consultants who will compile a case to prove that there is no feasible alternative to a road than through the bog's heart. It is the silent victim of a city newsletter to all residents explaining the urgency of the new link.

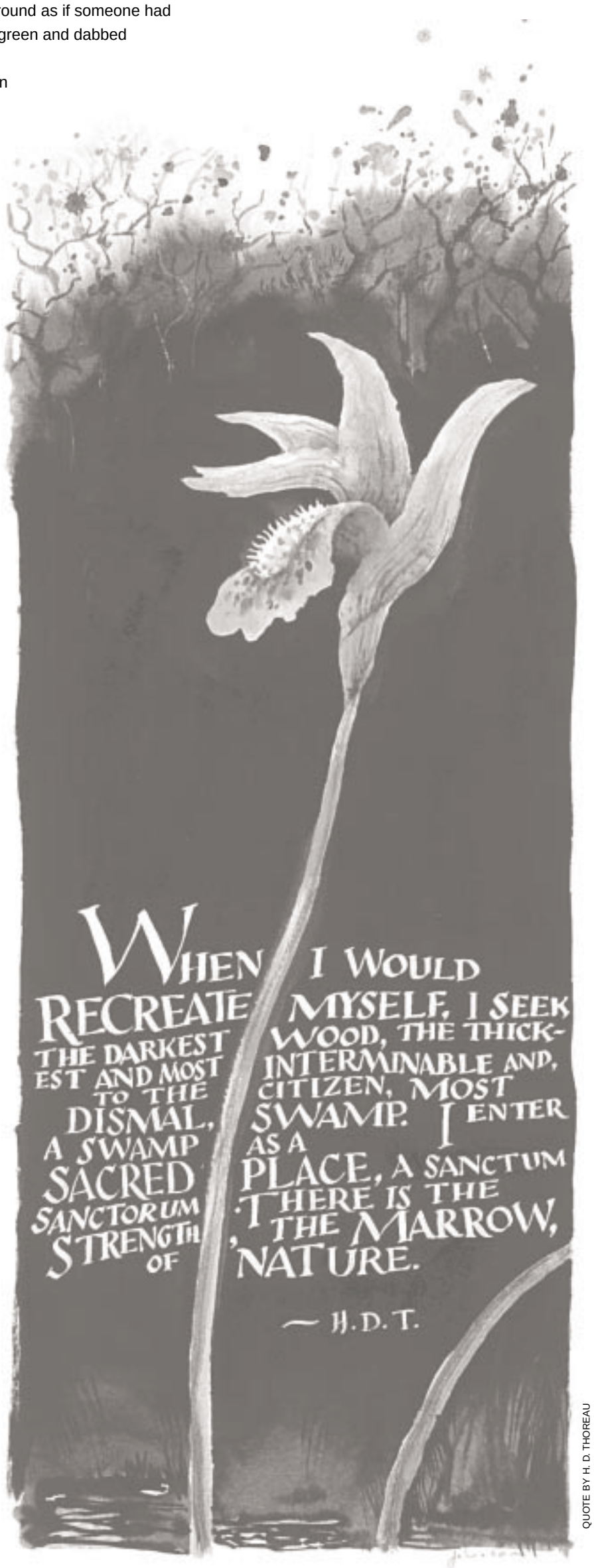
Planned more than twenty years ago as part of a larger highway scheme, the proposed road is propelled by the weight of old ideas and expectations, by the new availability of funds, and by the traffic generated when the city built one small segment of the larger highway several years ago without publicizing its connection to the overarching concept.

I arrived at the bog on a friend's instructions to photograph the area for a lecture at Bates College in which I hoped to awaken the breakfast audience to a natural gem threatened by the city's plans. Perhaps something in me or my bearing called for guidance. I do not know, but as I stood camera-in-hand in a dirt parking lot, an elderly man well beyond retirement years puttered over to me on his motor scooter.

"Are you lost?," he asked, then told me that I had found the place I sought, pointed to his bungalow, and waved at the expanse of modest homes, family businesses and green vista that would be destroyed by the proposed highway.

My guide proceeded to describe the world that the bog offered him...species of birds that he watched each day throughout the year, noting annual variations in their numbers and the numbers of chicks; the wild turkeys that ventured from the bog onto his daughter's lawn, for she too lived nearby; and the other wildlife he had witnessed. He turned away from the bog toward me and concluded: "I think that I am one of the luckiest people in the world."

And I was lucky to have met him, to remind me that we are all fortunate to be living in Maine. But only if we stop to know my guide's world. So, let us observe the bog with eyes that discern the raven in the trees and listen with ears that hear the green frog. Let us speak with voices that are passionate, that repeat our calls, that insist on being heard to save the wild places from ourselves. Let us create our communities within natural areas so that we can define the quality of our lives not by traffic counts and measurable outcomes, but by an understanding that we are the luckiest people in the world.



QUOTE BY H. D. THOREAU

What Shall We Tell Our Grandchildren?

— by Beth Nagusky

NRCM PHOTO ARCHIVES

The planet our children and grandchildren inherit from us will be much less hospitable than today's. Our generation's consumptive, wasteful lifestyle — which burns far too much coal, gas, and oil — is having profound consequences for the planet's climate. Atmospheric scientists have looked into our future, and it is not a pretty picture. By the end of this century, the United States is projected to be five to 10 degrees Fahrenheit warmer on average, and Maine's climate will likely resemble that of the mid-Atlantic. Droughts, floods, and ice storms will be more common and water quality will deteriorate.

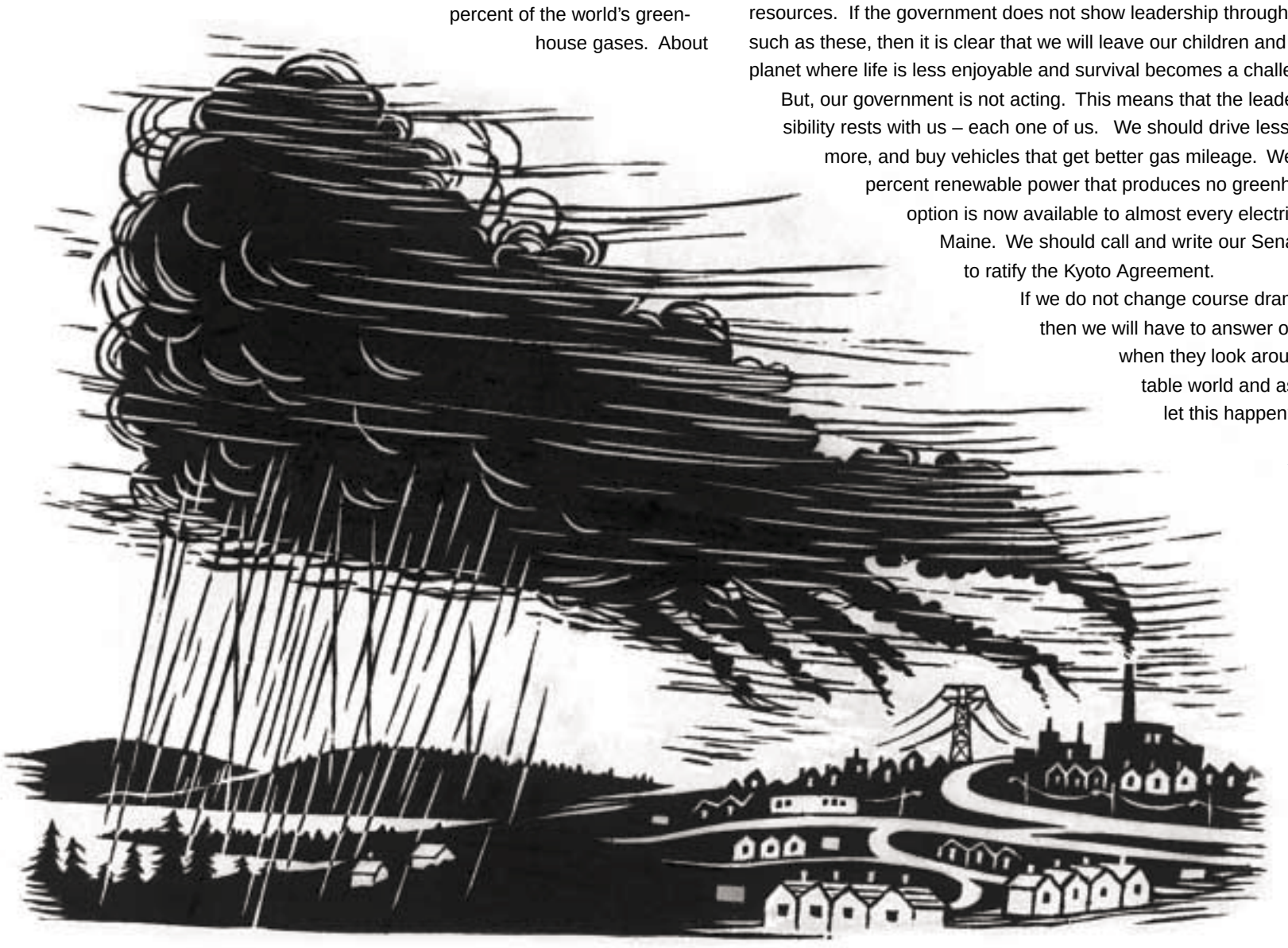
But, this is not all. Many of the activities our families have taken for granted may no longer be possible. Cross-country skiing, sledding, and ice-skating on Maine's lakes and rivers will be a thing of the past – except during rare cold snaps. Our children and grandchildren will not be able to tap the backyard sugar maples for syrup, or enjoy their brilliant fall colors — these trees will not survive the hotter climate. Nor will Maine's spruce and fir survive. Moose, pine marten, and some bird species will have migrated north to Canada. Instead, we'll welcome opossums. Insects carrying diseases like Lyme disease and the West Nile virus likely will become more pervasive during the hot and humid summer months that will descend upon Maine.

Taking walks on Maine's beaches will be impossible if they become submerged, as predicted, by rising sea levels. Scientists this year have determined that the North Pole is melting so fast that it could disappear entirely each summer beginning in just 50 years – potentially causing the extinction of polar bears, walruses, and other arctic wildlife that depend on an ice pack.

We have seen a dramatic global warming trend in the 20th century. Global temperatures have risen by 0.6 to 1.2 degrees Fahrenheit, and the 10 warmest years of the century all occurred during the last 15 years. Global sea levels have risen four to 10 inches. Weather events with intense precipitation have increased by about 20 percent in the U.S.

The culprit for these changes in our climate is no mystery. It's us. A recent analysis of the climate of the last 1,000 years concludes that human activity — primarily the burning of fossil fuels that produce greenhouse gases — is the dominant force behind this trend, while natural factors like fluctuations in sunshine and volcanic activity account for only 25 percent of the warming since 1900.

We should be ashamed of ourselves. Citizens of the United States produce more greenhouse gases than citizens of any other country. The United States makes up roughly five percent of the world's population, but we produce nearly 35 percent of the world's greenhouse gases. About 82 percent of our emissions are from burning fossil fuels to generate electricity and power our vehicles. For the past 12 years, we have been warned by leading scientists from around the world that the combustion of fossil fuels will contribute to global climate change, which will have devastating consequences.



Although the drumbeat of warnings has become increasingly dire and scientifically substantiated, we continue to ignore it – doing virtually nothing to curb our greenhouse gas emissions. In fact, emissions from the United States rose nearly 3.5 percent between 1990 and 1997 – a period marked by increased sales of larger, less efficient vehicles and higher levels of fossil fuel use for producing electricity.

Despite our moral imperative to act, the U.S. Senate refuses to ratify the Kyoto Protocol, which would commit the U.S. to a seven percent reduction in greenhouse gas emissions (from 1990 levels) by 2012.

There is much we could do — and save money at the same time — to reduce our emissions of global warming gases, both as a nation and individually. At the federal level, we should increase the federal corporate average fuel economy (CAFE) standard to 40 miles per gallon, set a cap on carbon dioxide emissions, establish a market for greenhouse gas credit trading (like we did for acid rain), and require that a certain percent of all electricity in the nation comes from renewable resources. If the government does not show leadership through policy actions such as these, then it is clear that we will leave our children and grandchildren a planet where life is less enjoyable and survival becomes a challenge.

But, our government is not acting. This means that the leadership and responsibility rests with us – each one of us. We should drive less, walk and bike more, and buy vehicles that get better gas mileage. We should buy 100 percent renewable power that produces no greenhouse gases — this option is now available to almost every electric customer in Maine. We should call and write our Senators urging them to ratify the Kyoto Agreement.

If we do not change course dramatically, and soon, then we will have to answer our grandchildren when they look around at their inhospitable world and ask: "Why did you let this happen?"

On Thinking and Acting Locally

— by Don Hudson

A fundamental challenge of environmental educators is to help people comprehend the meaning of relationships *within* the natural world, *between* themselves and nature, and *between* themselves and events, wildlife, ecosystems and the human condition elsewhere on planet Earth. For some people, too much attention to the latter set of relationships — between individuals and our global predicament — can have the undesired affect of spurring despair.

The 1970s-era catch phrase "Think Globally, Act Locally" likely was coined, in part, as a defense against feelings of hopelessness. This motto instructs people to become informed about global environmental threats, but to channel their energies to the local level.

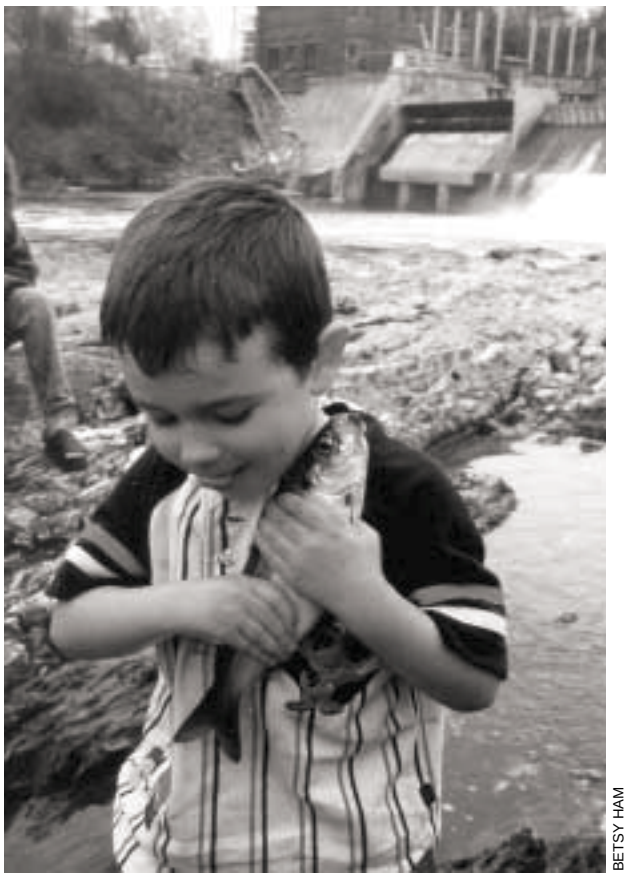
As we enter the 21st Century, a foundation of understanding about global environmental problems remains vital, yet we also must do more – much more – to promote curiosity, understanding, appreciation, and a sense of duty within our immediate spheres of influence. We must *Think locally, Act Locally* as we work to create a sustainable society.

Rachel Carson was a master at thinking locally, so beautifully explained in her essay "The Sense of Wonder." Written shortly before her death, the piece describes her walks along Maine's rocky coast and through forests and fields – listening to songbirds, identifying plants, delighting in new discoveries. Rachel Carson implored us to introduce our children to the "excitement and mystery of the world we live in" before they lose their "clear-eyed vision…for what is beautiful and awe-inspiring." If we can just grasp the wonder of our natural world, then we will do what needs to be done to protect it.

From personal experience, I know that this invocation works. Naturalists and environmental educators – call us "educators for sustainability" – help people see the world in all its complexity in an effort to make sense of it. We try to instill a sense of place (thinking locally), which in turn may foster stewardship (acting locally), as well as confidence in one's ability to make a difference.

I believe that every school in the nation — indeed, every school in the world — needs teachers who understand and appreciate nature and have the ability to foster a sense of wonder and responsibility. For too long, environmental education has operated on the fringes of traditional schooling.

But I also believe that the responsibility for teaching others about our place within nature, and our stewardship responsibilities, extends far beyond the realm of naturalists and educators with formal environmental training. Every teacher *everywhere* must think of themselves as naturalists and "educators for sustainability" if we are to have any hope of bringing the impacts of human society into balance with our natural world.



BETSY HAM

All of us to one degree or another are naturalists. It is the human condition. We ask questions of life and our world, and we seek and find answers. We put information together and draw conclusions. As a result, our perspectives on the world are changing all the time. By our regular observations, we see more and more connections in the patterns of life on Earth. A farmer watches the sky to mark his harvest of hay. A fisherman watches the surface of the water to see what's hatching before tying just the right fly. A musician listens to the call of a bird for inspiration; a poet contemplates the silence of the heavens on a moonless night. Each of us in our own way can learn from and be inspired by the plants, animals, and natural processes which surround us.

We must all become students and educators of sustainability by paying more attention to the environment around us, learning about the workings of our natural world, and taking advantage of opportunities to make a difference at the local level. We share a responsibility to lead others to make discoveries of their own. Find anyone with a thread of conservation ethic in the fabric of their soul, and I'll wager that they will point to someone who led them to the world outside the classroom.

Each year, some 40,000 students participate in a Chewonki program – learning topics as diverse as the nesting preferences of osprey, the life cycle of mussels in Hockomock Bay, and the diversity of microbial life in the woods of Chewonki Neck. *Think locally. Connect yourself to these marvels of Maine.* That's what we try to ingrain upon our visitors and students. For the most part, environmental educators never know how their lessons may affect the thinking and behavior of their students later in life. But we're fairly sure they do, and the impact probably is measurable in terms of volunteer hours devoted later in life to watershed associations, local habitat protection efforts, open space planning committees, and tree planting days.

If we hope to change the conduct of human society, from our current patterns of profligate consumption to a future condition of sustainable living, then we need to start at home – with knowledge and action. We need to open our eyes to the wonder of life around us, then roll up our sleeves and work to help save our own corner of the planet from despair.

The Multiple Obligations of Sustainable Development

— by Christopher (Kit) St. John and David Vail

The 1987 Brundtland Commission established perhaps the most recognized current definition of sustainable development: "meeting the needs of the present without compromising the ability of future generations to meet their needs." This definition communicates important notions of equity and moral obligation as it relates to future generations. We have a social responsibility to ensure that healthy ecosystems, ample natural resources, and effective institutions are conveyed to those who will follow us, so that they may meet their needs, as they see them.

Sometimes overlooked in discussions about sustainability is our moral obligation to help current generations meet their essential needs. The central question this essay poses is: Are we fulfilling the moral imperative to "meet the needs of the present" here in Maine? Current statistics on education, livable wages, and children's welfare suggest that we are not.

We believe that current and future generations have at least five essential needs: education and lifetime learning opportunities, rewarding livelihoods, secure access to basic necessities, environmental justice and community vitality. Those who are concerned about sustainable development should be concerned about Maine's performance across each of these areas.

According to indicators developed by the Maine Economic Growth Council, as part of its *Measures of Growth* project, Maine is lagging across a number of critical areas associated with education and lifelong learning. Maine is behind New England and the nation in the percentage of Maine people 25 years and older who have attained at least a Bachelor's Degree and we are showing no improvement in the number of Mainers who participate in lifelong learning.

While proportionally more students complete high school in Maine than nationally, this can no longer secure dependable livelihoods. Stronger K-12 education and far more post-secondary opportunities are crucial - and expensive. Education is our largest collective investment for the next generation, absorbing half the state's budget and more than half of most town's revenues. Many towns, however, cannot offer what their young people need. In the early 1990s, Maine's commitment to equalize education funding across communities suffered. Recently, the state has partially restored public school parity and modestly increased its higher education commitment. But educational quality and quantity still fall short of 21st century citizens' needs, especially in rural regions.

In a fast changing economy, investments in people cannot end with a diploma or even a college degree. Since the typical adult can expect to have five, ten or more employers over a career, continuous renewal of skills is the key to minimizing human obsolescence. Roughly 100,000 Maine adults a year need retraining, but our current publicly supported programs can meet only one-tenth of that need. In the 1990s, this huge gap between need and capacity contributed to "downward mobility" for thousands of laid-off adults. In this new century, it adversely affects Maine's ability to compete nationally for quality jobs.

Livable wages are a crude but important indicator of sustainable livelihoods. The Growth Council found that in 1998 just two-thirds of Maine jobs paid a rock-bottom livable wage ($19,673 or 185 percent of the federal poverty level for a family of two). In the current economic boom, the percentage of livable wage jobs has inched up very slowly, but we are not on track to reach the Growth Council's goal of 85 percent livable wage jobs by 2005. Basic changes in Maine's job mix are a special concern: the occupations gaining most jobs from 1992 to 1997 had earnings averaging $21,346 per year, while the categories losing most jobs averaged $34,497.

Children's well-being and opportunities are crucial for a sustainable future. A Maine Center for Economic Policy study suggests that households need income 100 percent above the poverty line ($23,731 for a family of two in 1999) to insure that children have the basic necessities to thrive. But three of every eight Maine children live in households that don't meet this income level. These families are far more likely to lack health insurance, experience utility shut-offs, and be at risk for hunger and homelessness.

The long-term consequences of growing up in a materially deprived family are well-documented and costly for society as well as for individuals. As Maine's population ages, more of us will inevitably require state assistance. If, in addition, many of the younger generation are unable to transcend impoverished backgrounds, the state's future fiscal sustainability will be jeopardized.

There has been growing national concern about "environmental justice." It starts from the premise that every citizen has an equal right to clean air, clean water, and hazard-free workplaces; and from the observation that communities of color and lower socio-economic status face greater environmental risks in their workplaces, homes, and neighborhoods. In Maine, these race and class injustices have been muted, but here, too, pollutants and hazardous wastes are unevenly distributed and local concentrations often seem to be high where income and wealth are low.

Finally, for many Mainers, development patterns undermine the basic need for a thriving community environment. Numerous downtowns are deteriorating physically and developing concentrations of economically-dependent, low income people. In suburbia, sprawl is eroding civic and cultural life and reducing open space and wildlife habitat. And scores of distressed rural communities continue to lose jobs, population, and social vitality. A thread connecting these three patterns is Mainers' overwhelming dependence on personal vehicle travel, with accompanying impacts on commuting costs, traffic congestion, pavement proliferation, air pollution, and global climate.

A careful examination of our economy and the current human condition of Maine people demonstrates that we are failing to meet the needs of the present, as required if we hope to achieve sustainable development. The twin objectives of sustainability – involving the present and the future – are inextricably linked. If we aspire to long-term *environmental* sustainability, we must do better at meeting basic needs today.

As has been demonstrated throughout the globe, when people's basic needs are secure their support for environmental protection and resource conservation increases. As William Ruckelshaus observed at Maine's first sustainable development conference in 1993, "Environmental destruction and poverty...can only vanish together." The path to a sustainable future begins with shared prosperity today.

A Cleansed World

— by Ruth Langton
Age 13

A damp fog wraps
around me
as I step into the evening.
Mist hovers silently over the
glassy surface of the pond
like a ghost
waiting
to engulf me
I shuffle through
leaves
which have fallen
from the overhanging branches.
The air is damp,
yet icy and clear.
It seems as though the world has been
cleansed of all evil.
And for a moment
nothing can go wrong.

Night

— by Izack Adler
Age 7

Dark pours a nightly
feeling over the calm, green valley from the
miles of silent beauty
in the endless atmosphere.
World is in peace.

Brave New Park

— by W. Kent Olson

"O brave new world that has such people in it . . ."

— William Shakespeare, *The Tempest*

Acadia National Park is under assault not only by the sheer volume of use within, but increasingly by what happens at the park's rim. Roads are the vectors. Automobiles and RVs are the weapons.

Acadia sustains, if that's the proper word, roughly three million annual visits. It ranks eighth overall in national park use and is Maine's most popular destination after L.L. Bean. Here is a crude comparison: Acadia has 54.9 people per acre on its 47,000 acres, while Yellowstone, which is 47 times larger (2.2 million acres), has 1.4 people per acre.

If historic doubling rates hold, Acadia visitation will reach *six million* by 2020. Most people will still arrive motor-wise. The future of this nonpareil natural asset and powerful economic generator will turn mostly on how the National Park Service manages motor vehicle demand.

On Mount Desert Island, a small core of public park lands lies at the heart of everything. It and we are encircled by the finest kind of open space—saltwater. Endless oceanic plains of it, delineated here and there by other islands, a fractured coastline, an ultimate dome of sky. Montana has nothing on Acadia.

Acadia's character is a function of such natural facts, commonly called phenomena. They make a small place seem large. These irreducible facts of nature also drive the economy and inform the lives of island people. Year round or seasonal residents are literally of this place. The fates of the public asset and its private settlers are tightly linked. A community planner once explained it in the negative: "If you pave over the land, you pave over the people who would have sprung from the land."

Acadia will never be paved. But if the protected core park had not been established, the area might now look like St. Thomas in the Virgin Islands, whose hillsides are chicken-cooped with housing. Or North Conway, New Hampshire, a White Mountain gateway where sprawl obscures classic views. Or Aspen, Colorado, whose valley is filling up like a foundering vessel.

Perhaps the mammoth granite pluton called Mount Desert Island might handle yet more bloated numbers of vehicles *physically*. But the park and island would be flagrantly diminished for it, and the substance of the place – its outstanding natural beauty, ecological vitality and cultural distinctiveness – compromised irrevocably.

It is not a question of geophysics. It is a question of values. Do those who live, visit or work here want Coney Island and an amusement park, or an authentic Mt. Desert Island and a national park?

The Coney Island motif seems to be winning. In high season, congestion and gridlock are commonplace, even in-park. On village streets, the usual blood-sport parking rules are in effect. Downtown traffic crawls, worsened by RVs. Traffic volume, on which no limits exist, goes unmanaged in any strategic sense. It will eventually self-regulate, but at much higher numbers than now.

Ultimately, fed-up visitors will simply not return. That will define Mount Desert Island's terminal carrying capacity by default, at whatever numbers the place will tolerate regardless of the environmental, social, or economic impacts. The surviving visitor corps, having self-selected, won't mind the herding or the low-quality experiences and therefore won't care about protecting the place.

That inevitably means a third-rate island and park. If we treat America's classiest real estate this way, one wonders what fate awaits the commonplace.

But there is hope at Acadia.

Acadia is one of a half dozen designated transportation demonstration parks, a classification that encourages experimentation. The National Park Service, the MDI League of Towns, U.S. Department of Transportation, Maine Department of Transportation, Downeast Transportation and Friends of Acadia developed, funded and managed MDI's innovative, free, propane-powered bus system. In 1999, 142,000 passengers rode. That eliminated 28,000 automobile and 12,000 RV trips, the equivalent of a 133-mile traffic jam, and pre-empted 560 tons of noxious emissions. At this writing, the 2000 ridership is up 40 percent, with commensurate benefits. The buses are a stunning success.

The partners are working toward a new, multi-modal transportation hub/visitor center for early in the century.

PHOTOS: GEORGE DEWOLF, FRIENDS OF ACADIA

But public transit advancements can form only part of the solution.

Private auto travel is a legitimate component of the Acadia experience. However, the park must set allowable numbers for personal vehicles, starting especially with RV's, which do not belong on the sculpted narrow roads that bespeak Acadia, and for appropriate commercial tours and services. The questions are how many, where and when.

The Park Service must develop advance reservation services and comprehensive pre-arrival education programs for prospective visitors, using aggressive public information practices and the best cyber-technology.

Finally, the park must create a tiered entry fee system that employs market incentives to encourage bus use and day-visitor parking. The Service will have to promote broadly the currently unenforced rule that all visitors carry passes. Issuing a fixed number of passes will be integral to stabilizing overall usage at reasonable levels.

Otherwise, more traffic equals more customers, feeding development's incremental march from the offensive Ellsworth strip southward. The conversion of fast-growing Lamoine and Trenton into non-towns looks inevitable. Simple math says it's only a matter of years before MDI, smothered in traffic, looks like everything else, a future to which some evidently would accede with nary a whimper.

If instead you hope for the island's economic durability, perpetual comeliness, and habitability – people functioning in serene proportion with their surroundings – you know we must work, affirmatively, to establish Acadia as a place apart. We *can* learn how to live well and responsibly at the edges of the public domain, to enter it in awe and reverence, to keep it intact forever.

That positive future lies way ahead, but can be reached with civic resolve. The other is no future at all.

Citizen Activists and the Future of Maine

— by Everett B. Carson

Nearly forty years ago, in the summer of 1962, one of my brothers and I canoed a hundred miles of West Branch country. We put in at Rockwood on Moosehead Lake, paddled across to Northeast Carry, then made the two-mile portage. We explored the West Branch, Lobster Stream and Lobster Lake, struggled against fierce headwinds on Chesuncook, and took out near Ripogenus Dam. The trip was my introduction to the magnificent wild country now known as Maine's North Woods.

During that summer of my 14th year, I could not have imagined that much of my life's work would be devoted to protecting the lakes, rivers, forests, fish, wildlife and wild places in this, my adopted state. But, having grown up exploring the hills, woods, and creeks of the Shenandoah Valley of Virginia, perhaps it was in my genes.

When I joined the Natural Resources Council of Maine in the fall of 1983, I was more than a little surprised – and very excited – to head back to the West Branch of the Penobscot to raft the river from Ripogenus Gorge (just below the dam) to the foot of Pockwockamus Falls. Part of that stretch, from the gorge to Big Ambajackmockamus Falls, was at risk of being flooded and destroyed by the proposed Big A dam. A group of staff and board members paddled the river on a brilliant, sun-drenched autumn day at the peak of color for the purpose of deciding whether we should commit the Council to the looming fight over whether the dam would be built or the river protected.

The moss covered granite walls of the gorge, leaping landlocked salmon, browsing moose and cascading falls persuaded us to fight for the river – a decision none of us will ever regret. We joined a growing coalition and chorus of voices that sought to protect the wildness and natural beauty of the stretch of river that courses through a corner of Baxter Park, and that stretch runs free and open today.

The West Branch is not unique among places in Maine that inspire citizens to act to protect our natural heritage. From the Caribou Speckled Wilderness area in the western mountains to the Gulf of Maine off Eastport, and from the Rachel Carson Wildlife Refuge to the Allagash Wilderness Waterway, citizens have come together to safeguard special or threatened resources. What is it about Maine that spurs such strong conservation action?

Perhaps, more than anything else, it is the "sense of place" that we all experience – in our daily lives, during weekend fishing trips, on family outings to a state park, hiking in Acadia, or simply cutting wood for the winter. It is the connection we feel to the land, forests, rivers and coast that are the defining features of the communities in which we live and work. And it is our individual and collective understanding that we bear personal responsibility for taking care of this place for all those who will come after us.

Much has been written about well-known environmental activists like Percival Baxter, Rachel Carson and Edmund Muskie. We all know that they blazed conservation trails into uncharted territory, incurring the disdain of their detractors and the wrath of their opponents. But they persisted, working to convert their visions of public ownership of Katahdin, fewer toxics in our environment, and clean air and water for all Americans into reality.

In our rapidly accelerating lives of the early 21st century, it is truly remarkable that there are still so many dedicated citizen activists. Although their visions and achievements are more modest than those of Baxter, Carson and Muskie, their efforts are still noteworthy. They stand up – and stand out – among their fellow citizens, calling for cleaning up a dirty power plant, restoring wild Atlantic salmon or protecting a tract of traditional farmland from development. They are also courageous, often having to withstand enormous pressure from powerful people within the political establishment.

Looking ahead forty years to a time when my young children will be the age that I am now, I hope the Natural Resources Council will be protecting Maine's environment with the same skill and intensity that we used to help protect the West Branch from the Big A dam. Let us also hope that there are fewer forces at work to despoil the natural beauty of Maine, and that there is broader recognition of the need to safeguard and sustainably manage our resources.

Most important of all, I trust that the citizen activists who have always stood up for a healthy environment will still be here and that our numbers will have grown. There will almost certainly be more issues around which to build coalitions. If we have done our work exceptionally well, perhaps we will also be able to pause and celebrate protection of special resources, like the West Branch. When all is said and done, it will have been the citizen activists who have preserved the essence of Maine for our grandchildren.

The Blessing

— by Sherry Ballou Hanson

The end of winter.
The end of darkness.
I stagger from the clutches
of inertia, from cold
sitting on my chest
to sunrise at 5:30,
bird song in my door yard.

In the Firebird lean and low
sprung from winter storage
I leave behind city grime,
blackened piles of snow,
my most unblessed thoughts.

Star Lane, Spirit Hill Way,
star-spattered names
on the long drive down
the turning, twisting road
rising and falling
to the beat of my heart

until at last the beach
scrubbed clean by endless tides,
black and shining Labradors
running in the sand,
ledges floating seaweed
in the healing, cannonading surf.

Contributors...

Izack Adler, 7, is a first grade student from Woolwich. The author of "Night," he enjoys sketching, writing and reading.

Anne Atwell-McLeod, 14, is from Southport. She wrote her poem, "Through the Eyes of Morning," after walking through an Edgecomb field on a frosty morning.

Phyllis Austin is the senior writer for *Maine Times*, primarily reporting on environmental issues. Previously, she worked for The Associated Press. Austin is the recipient of two of journalism's most prestigious fellowships – the Alicia Patterson Fellowship in Washington and the John S. Knight Fellowship at Stanford University. In May 2000 she was the recipient of a Distinguished Service Award from the University of Southern Maine. She resides in Brunswick.

Kate Barnes is the daughter of Maine writers Elizabeth Coatsworth and Henry Beston, and was brought up in Nobleboro, as well as partly in Massachusetts. For the past five years, she has served as Maine's first poet laureate. She has two books in print: *Crossing the Field*, Blackberry Books, and *Where the Deer Were*, David Godine, Inc. Her poetry has appeared in such periodicals as *Harper's*, *The New Yorker*, and *The New York Times*. She lives on a farm in Appleton that raises wood, hay and blueberries.

Dean Bennett is a professor emeritus from the University of Maine at Farmington and holds a Ph.D. in resource planning and conservation with a major in environmental education from the University of Michigan. Born and raised in rural western Maine, he is a naturalist at heart and has written, illustrated and photographed work for a number of books including *Allagash: Maine's Wild and Scenic River,* and, most recently, *The Forgotten Nature of New England: A Search for Traces of the Original Wilderness.*

Philip Booth is the author of several books of poetry including *Pairs, Available Light, Weathers and Edges,* and *The Islanders.* His work has been honored by Guggenheim, Rockefeller, and National Endowment fellowships, among other awards. Educated at Dartmouth and Columbia, Booth taught at Wellesley and at Syracuse University. He now lives and writes in the house where he grew up, located in Castine.

ROLLIE MCKENNA

Brownie Carson has been the executive director for the Natural Resources Council of Maine for the past 16 years. A graduate of Bowdoin College and the University of Maine Law School, he served in the Marine Corps in Vietnam and six years with Pine Tree Legal prior to joining the Council in 1983. He resides in Brunswick with his wife and twin daughters.

Robert Chute is a graduate of the University of Maine and John Hopkins University. He has over 500 poems and seven chap books in print, and is a recipient of the Chad Walsh Prize from Beloit Poetry Journal and the Maine State chap book award. His letter press collection of non-fiction poems about Russian women combat flyers in WWII, *Sweeping The Sky*, was published in April 2000. He resides in Poland Spring.

Pete Didisheim (Editor) has served as the advocacy director for the Natural Resources Council of Maine since 1996. Previously, he was a lobbyist for the Union of Concerned Scientists, Chief of Staff for Congressman George Brown and Deputy Chief of Staff of the U.S. Congress Committee on Science, Space and Technology, as well as special assistant to U.S. Secretary of Energy Hazel R. O'Leary. He lives in Brunswick with his wife and two boys.

Tom Fallon formerly was the poetry editor for *Maine Times* and director of Maine Writers and Publishers Alliance. The recipient of two Maine Arts Commission grants, he is the author of *Through A Stranger's Eyes* and *The Man on the Moon*. He lives in Rumford, and is the editor of the first independent online poetry magazine in Maine, *Apples & Oranges International Poetry Magazine* (www.aopoetry.com).

Ken Geiser is a professor of work environment at the University of Massachusetts at Lowell, director of the Massachusetts Toxics Use Reduction Institute (www.turi.org) and co-director of the Lowell Center for Sustainable Production (www.uml.edu/centers/LCSP). His new book *Materials Matter: Towards a Sustainable Materials Policy* will be published in January 2001 by MIT Press. Although he travels and lectures extensively, Ken spends as much time as he can at his farm in Sumner.

Lani Graham is a family practice physician and the former director of the Maine Bureau of Health. She has served on numerous state boards and national committees including the Association of State and Territorial Health Officers Prevention Policy Committee and the State Advisory Council, Partnership for a Tobacco Free Maine. A Maine native, she currently resides in Portland.

Sherry Ballou Hanson is a writer and poet living in Brunswick, Maine. In her spare time she teaches other writers how to get published. She also enjoys kayaking, biking, hiking and skiing in our great state.

Don Hudson is president of The Chewonki Foundation where he teaches a course with Bill Zuehlke on the "Natural History of the Maine Coast." He has served on the state's Endangered Plant Technical Advisory Committee, the Botanical Advisory Committee and is a former president of the Maine Environmental Association and the Gulf of Maine Marine Education Association. He lives in Arrowsic with his wife, Phine Ewing, and their two sons, Charlie and Reuben.

JOCK MONTGOMERY

Robert Kimber lives in Temple, where he writes often for outdoor, environmental, and regional publications. He is a former board member of the Natural Resources Council of Maine and has been a member of the Council for more than 30 years.

Ruth Langton, 13, is from Edgecomb and enjoys gymnastics competition, racing soap box cars and traveling to foreign countries. An admirer of the poet Mary Oliver, Langton creates powerful images of nature through her writing and crafted the poem, "A Cleansed World," while watching a ghostly mist hover above a pond near her home.

Dr. Paul Liebow is an emergency room physician. He enjoys writing op eds and letters to the editor on various Council issues. An interest in air quality and toxic use reduction come naturally from his professional training, but environmental aesthetics, and species, ecosystems and wilderness preservation are also very important to him. A resident of Bucksport, Paul was a founding member of State Taxpayers Against Pollution, which helped prevent construction of a coal-fired power plant in Bucksport in the early 1990s.

Bonnie Lounsbury is the executive director of the Androscoggin Land Trust, an organization which she helped to establish in 1990. Bonnie is also a member of the board of Maine Coast Heritage Trust. She served for seven years as a public member of the Board of Pesticides Control. In 1992, Bonnie received NRCM's Maine Conservation Award. She resides in Auburn.

Jon Luoma grew up in Ohio and has lived in Maine for 25 years. He is a freelance illustrator and has contributed artwork to many publications, often on environmental subjects. In 1998, he illustrated a letterpress edition of Thoreau's *The Maine Woods*.

Janet McMahon is an ecologist, with a dual major in biology and geology from Colby College and a master's from the University of Maine, Orono in botany. She has worked for The Nature Conservancy, Maine Audubon Society, Maine State Planning Office, and Atlantic Center for the Environment, and now works as a self-employed consultant. Janet, her husband, and their two daughters live in Waldoboro.

Wesley McNair is the author of five books of poetry and the recipient of fellowships from the Rockefeller, Fulbright and Guggenheim Foundations, a National Endowment for the Humanities fellowship in literature, and two National Endowment for the Arts fellowships in poetry. A book of his essays about poetry and place, *Mapping the Heart*, and a new volume of poetry, *Fire*, are due out in 2001. Currently a visiting professor at Colby College, he directs the creative writing program at the University of Maine at Farmington, where he recently received the Libra Professorship.

MARTHA MICKLES

Beth Nagusky is the executive director of the Independent Energy Producers of Maine and the New England Renewable Power Producers Association, state and regional associations of renewable power producers. Previously, Beth worked for nine years as a staff attorney at the Natural Resources Council of Maine and four years as an attorney with the Public Utilities Commission. Beth recently purchased a 75 mile-per-gallon Honda Insight, and resides in Litchfield.

W. Kent Olson, the president of Friends of Acadia, lives in Bass Harbor. A career conservationist, he was president and chief executive officer of American Rivers, executive director of The Nature Conservancy of Connecticut and general manager of the Appalachian Mountain Club Hut System.

Louis (Sandy) Sage is executive director of Bigelow Laboratory for Ocean Sciences in West Boothbay Harbor. Prior to moving to Maine, Sandy directed the Benedict Estuarine Research Laboratory at the National Academy of Natural Sciences of Philadelphia, then became vice president of the Academy and director of its Environmental Research Division. Sandy was instrumental in starting the Chesapeake Bay Restoration effort. He and his wife Honor Fox, the Natural Resource Council of Maine's development director, live in Alna.

Christopher St. John studied African history at Harvard College and the London School of Oriental and African Studies and holds a law degree from Yale Law School. Since 1994, he served as executive director of the Maine Center for Economic Policy, a small nonprofit research organization addressing Maine state tax and budget policies. He serves on the boards of directors of the Maine-watch Institute, Maine Equal Justice Project, Consumers for Affordable Health Care Foundation, Maine Businesses for Social Responsibility, and the Bates Morse Mountain Conservation Area.

Jack Sherman, 13, is a ninth grade student. While in the eighth grade at the Center for Teaching and Learning in Edgecomb, he wrote "The Deer" for the 1999 River of Words Project of the International Rivers Network.

Audrey Stoltz, 13, is a resident of Dresden. Her poem, "The Complexion of Evening," was inspired by an unforgettable sunset.

Tanya Lewis Swain (Project Assistant) is a copy writer and media relations specialist. She holds a B.A. in Political Science from the University of Washington in Seattle and worked for several years as the news editor of an award-winning weekly newspaper in western Maine. She resides with her husband and two young daughters in Farmington.

Linda Tatelbaum homesteads in a solar home in Appleton. She is the author of *Carrying Water as a Way of Life: A Homesteader's History*, (About Time Press, 1997) and *Writer on the Rocks – Moving the Impossible* (About Time, 2000). She teaches English at Colby College, and also raises vegetables, fruits, rabbits, and flowers, puts up a year's food supply, heats with wood, and maintains a composting toilet.

Betsy Taylor is executive director of the Center for a New American Dream, a national nonprofit group dedicated to helping Americans consume responsibly to improve our quality of life and protect the environment. She served on the Population and Consumption Taskforce for the President's Council on Sustainable Development and has published feature articles in numerous national newspapers and journals. She holds a master's degree in public administration from Harvard University and lives with her husband and two children in Maryland.

Clinton B. Townsend, an attorney in private civil practice since 1954, has been involved in environmental matters for almost 40 years, with a particular interest in wildlife habitat and preservation of the natural world. A founding board member and former president of the Natural Resources Council of Maine, Bill has also served on Maine's Land Use Regulation Commission, on the boards of Land for Maine's Future and the North Atlantic Salmon Conservation Organization, and as chairman of the Maine Chapter of The Nature Conservancy. He resides in Canaan.

David Vail is an Adams-Catlin Professor of Economics and former director of environmental studies at Bowdoin College. David was trained in international affairs at Princeton's Woodrow Wilson School and has a Ph.D. in economics from Yale. He has been involved with Maine environmental and natural resource issues since the late1970s, when he served on the Maine Food and Farmland Commission. For the past decade, David's research and advocacy work have focused on sustainable agriculture, forestry and nature tourism in Scandinavia and New England. He resides in Brunswick.

Douglas Watts is a freelance outdoors writer and has worked as a writer/editor for publications in Brewer, Rumford, Norway, Bucksport, Portland and Augusta. He is co-founder of Friends of the Kennebec Salmon, vice president of Kennebec Valley Chapter of Trout Unlimited and an officer of the Maine Council of the Atlantic Salmon Federation. He resides in Augusta.

Marley Witham, 9, is a fourth grade student from Arrowsic who loves to play the violin, walk in the woods and study history. Her poem, "I Am Wild," was based on an trip to Swan Island.

Reflections

On the Future of Maine's Environment

- *Essays*
- *Poetry*
- *Art*
- *Photography*

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The Natural Resources Council of Maine is the state's leading member-supported environmental watchdog before the Maine Legislature and state agencies, working to ensure that citizens' voices for the environment are heard. Since 1959, our staff of lawyers, policy analysts, organizers, and scientists have worked to clean up Maine's lakes and rivers, reduce air pollution, protect our forests, and conserve Maine's special places. We work in coalition with other environmental, health, and community groups in order to improve the health of Maine's people and environment. Thousands of people around the state who want to protect Maine's natural beauty and healthy ecosystems support our work on important environmental issues.

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