Reaching More Than 26,000 Sierra Club Members in Massachusetts

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MASSACHUSETTS SIERRAN

Volume 13 • Number 1

Spring 2007

Massachusetts Sierra Club

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Annual dues in the Sierra Club are \$39, of which \$1 is for a subscription to the Massachusetts Sierran.

PATRICK MAKES GOOD ON CAMPAIGN PROMISE TO REJOIN RGGI

Letter from the desk of James McCaffrey, Director

Deval Patrick, as a candidate for governor, assured supporters that energy and the environment would be priority issues for the Patrick administration. Undoing more than a year of excuses by the Romney camp, on January 18th Governor Patrick signed Massachusetts back on to the Regional Greenhouse Gas Initiative (RGGI), a program to help New England curb global warming causing emissions.

Still, not all promises are golden. While Massachusetts ranks near the bottom on spending for environmental protection, Patrick has already asked agencies to trim even more from parks, recreation, and environmental monitoring and enforcement budgets, all programs that were severely slashed under Romney's watch.

Also, Governor Patrick has made continuous overtures to the business community by promising to expedite permitting in Massachusetts to "foster growth" even though the legislature passed sweeping reforms with an expedited permitting bill last session. Patrick has vowed to reduce permitting in Massachusetts to six months, create "one-stop shopping" for development approvals, and has appointed a "permitting ombudsman" to facilitate this process.

While all may not be perfect for either the business or the environmental community, it's dangerous to overhaul environmental protections without fully understanding the effectiveness of current laws. Preliminary research by the Sierra Club indicates that more than half of the developers in the commonwealth are in non-compliance with key components of our environmental laws. We will report more on this in the summer issue of the *Sierran*, and hopefully, at that time, the laws themselves will still exist, rather than being weakened under pressure for permitting reform. Governor Patrick's first six months in office will indeed be very telling — rejoining RGGI to help combat the threat of global warming is clearly a promising start, and we are hopeful it was not a solitary gesture.

ON THE COVER: Song Sparrow Photograph by Bill Byrne, for MassWildlife								
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Where We've Been *and Where We're Going!*

This past year, the Massachusetts Chapter engaged in many important conservation and environmental policy issues in the state.

Parks and Open Space: Many Club members attended hearings last spring on the state's Forest Reserve plan which designated nine large forest reserves totaling more than 50,000 acres within state agency woodlands. The chapter worked with the Department of Conservation and

Recreation to allow for public review and participation in its forest cutting plans on its other properties. In 2007, we will continue to fight for the improvement of the state's park system.

Energy: There are proposals for five Liquefied Natural Gas (LNG) facilities and many alternative energy facilities in the state. The chapter has been involved in their environmental review and permitting. At the same time, the Cool Cities Task Force attacked global warming by working to get our cities and towns to reduce their greenhouse gas emissions. So far, 13 Massachusetts communities have signed on as Cool Cities; our goal is to enlist 20 more by the end of 2007. The Energy Outreach Committee has produced a video on energy saving tips. Reducing the state's demand for energy is our conservation priority for 2007.

Legislation: Volunteers and staff worked to thwart countless moves by highly paid lobbyists to get legislative approval to place an LNG facility in the Boston Harbor Island National Park. In 2006, the Legislative Action Committee worked hard to advance its Parks Protection Package and will continue its campaign this session.

Transportation: The Sierra Club remains a leader in advocating for transportation choices around the state. We were one of the few environmental groups to discuss the impact of the MBTA fare increase on commuter rail users and the environment as well as the subway and bus riders. We joined former Governor Mike Dukakis and others to produce a report highlighting the importance of the North South Rail Link.

Wetlands and Marine Issues: The Sierra Club participated in the Taunton River watershed wetland banking study group and advocated with state agencies for continued strong regulations of development in wetlands. The Cape Cod Group continued its major role in the clean up of the Massachusetts Military reserva-



Painted trillium Photograph by Paul Mozell (mozellstudios.com)

tion and the protection of the Cape Cod water supply.

Politics: The chapter endorsed environmental candidates in over 75 races in 2006, from state legislature to governor and US congress and senate — and most of our candidates won. The chapter also co-sponsored the Gubernatorial Environmental Forum.

Outings: The chapter's outings program continues to provide opportunities for members and the public to explore

the outdoors and learn about conservation issues. In 2006, the chapter sponsored an enthusiastically attended educational cruise of the Boston Harbor focusing on the proposed LNG facility. The inner city outings program brought hundreds of Boston youth out into natural areas. The Chapter would like to expand the inner city outings program to other cities.

Volunteers and Groups: In 2006, members on the South Shore and in the Thoreau area got together to start forming regional Sierra Club groups. The Cape Cod Group's annual Join Muir Lecture and Desert Reception gathered Cape members to discuss waste water issues while the Essex County Group provided an opportunity for members to test drive alternative fueled vehicles at its annual cook-out.

Many new members have stepped forward to volunteer on new projects and to take enormous responsibilities, including our first volunteer coordinator. Mary Ann Nelson, who served as chapter chair for five years, has transferred leadership of the chapter to David Heimann, a long term volunteer on energy and regional issues. For 2007, the chapter has made improving the volunteer program and increasing the number of groups around the state priorities.

Funding – Your Help is Needed! The Massachusetts Sierra Club does a tremendous amount of work on a very small budget. Your generosity is crucial to doing our work. We appreciate the many members who have made contributions. We ask that you continue to support the Massachusetts Chapter in our local conservation programs.

To become active in the local chapter, call the office or send an email to volunteer@sierraclubmass.org. To donate directly to the Sierra Club in Massachusetts, send your donation to the chapter at its office (see page 2 for the address) or visit www.sierraclubmass.org.



Bill Byrne for MassWildlif

American woodcock

Birds Need Early-Successional Habitats in Massachusetts

by John J. Scanlon

7arious native wildlife species benefit from early-successional (non-forest) habitats to meet their annual needs for food and cover. Research sponsored by the Massachusetts Division of Fisheries and Wildlife Upland Habitat Program, and conducted collaboratively by

the US Forest Service and the Massachusetts Audubon Society, has determined that some bird species prefer shrubland habitats. Some birds, such as blue-winged warbler, field sparrow, and indigo bunting, are found in abandoned agricultural fields and shrublands with a mixture of herbaceous and woody vegetation. Other species prefer clearcut forest habitat dominated by broadleaved woody plants (chestnutsided warbler and mourning warbler), and many will utilize either shrubland or clearcut habitats (common yellowthroat, eastern towhee, and prairie warbler).

The population of these bird species is declining across the region. It is believed that lack of habitat contributes significantly to that decline. Many early-successional species appear to be habitat specialists that use relatively ephemeral conditions found in recently-disturbed environments. Typically, within a decade or so, the structure or composition of vegetation has changed enough that early-successional species abandon these habitats.

In the past, natural processes created more

Species of Greatest Conservation Concern in Massachusetts

Species of greatest conservation concern in Massachusetts associated with young forest and shrubland habitats, excerpted from the Draft Massachusetts Comprehensive Wildlife Conservation Plan available at: http://www.mass.gov/dfwele/dfw/cwcs/dfw_cwcs.htm

None of these species is covered by the U.S. Endangered Species Act; the State Status may be E (endangered), T (Threatened), or SC (Special Concern), or not covered by the state Endangered Species Act (blank). Global rarity ranges from G1 (Critically Imperiled) to G5 (Demonstrably secure). State rarity ranges from S1 (Critically Imperiled) to S5 (Widespread). Species with a range of either Global and/or State ranks (e.g., S1S3) have insufficient data to determine the number of viable populations.

SCIENTIFIC NAME	COMMON NAME	STATE STATUS	GLOBAL RARITY RANKING	STATE RARITY RANKING
Elaphe obsolete eastern ratsnake		E	G5	S1
Heterodon platirhinos	eastern hognose snake		G5	S4
Vermivora chrysoptera	golden-winged warbler	E	G4	S1
Oporornis philadelphia	mourning warbler	SC	G5	S1
Bonasa umbellus	ruffed grouse		G5	S5
Buteo platypterus	broad-winged hawk		G5	S5
Caprimulgus vociferus	whip-poor-will		G5	S4
Colinus virginianus	northern bobwhite		G5	S5
Dendroica discolor	prairie warbler		G5	S5
Empidonax traillii	willow flycatcher		G5	S4
Falco sparverius	American kestrel		G5	S5
Pipilo erythrophthalmus	eastern towhee		G5	S5
Scolopax minor	American woodcock		G5	S4
Spizella pusilla	field sparrow		G5	S5
Toxostoma rufum	brown thrasher		G5	S5
Vermivora pinus	blue-winged warbler		G5	S3
Zonotrichia albicollis white-throated sparrow			G5	S5
Synaptomys cooperi southern bog lemming		SC		S2
Sylvilagus transitionalis	New England cottontail		G4	S4
Hadena ectypa	a noctuid moth		G3G4	\$1\$3

disturbances on the Massachusetts landscape than they do today. Those processes included seasonal river flooding, beaver activity, and occasional fires and windstorms. Humans have substantially reduced all of these. More than 1,000 dams reduce flooding. Beaver activity historically occurred most frequently on lower slopes and along low-gradient streams in Massachusetts, but these low-lying sites have recently been the focus of human development. Beaver activity has been virtually eliminated in urban areas and is commonly restricted in suburban areas. Exact numbers are not available for Massachusetts, but in neighboring New York state, beavercreated floodplains have been reduced by about 65 percent from historical levels.

Disturbance by fire and wind have also been curtailed by human landuse. Fires formerly occurred to varying degrees within the broadleaf forest (oak-hickory) areas of eastern, south-central, and continued on page 12

Environmental Justice Pushes the Energy Agenda

by Robert F. Murphy

E nergy costs on Cape Cod, Martha's Vineyard, and Nantucket are unusually high. Although many residents waste energy and have opportunities to easily reduce their energy consumption, others are caught in the phenomenon known as "fuel poverty." Some low-income families are still struggling to pay their fuel bills from the 2005-2006 winter. In many homes, the poor ask, "Heat or eat?" For some homes, social workers and medical workers recommend that thermostats be turned up, not down.

Since 2001, members of the Cape Cod Group have identified energy issues as an environmental justice concern on the coast of Massachusetts. Working with religious and community groups, the local Sierra Club distributed information about fuel assistance and home energy conservation programs. The group has also assisted with fundraisers for the Housing Assistance Corporation, which manages homeless shelters, assists low-income families in finding affordable housing, and provides weatherization services for many of the households that need assistance with home energy conservation. For many elderly people and persons with disabilities, even the repair of a broken window is a major task. Many of the homes on Cape Cod and on nearby islands were built for summer use only and are not meant to be lived in during the area's harsh winters. Helping lowincome families to repair their homes and install efficient heating systems and adequate insulation is one way to help solve the area's energy problem. While responding to human needs, local environmentalists promote energy education. In coastal areas, especially, people are frequently concerned about the global warming problem and, given the opportunity, many will support environmental protection.

While the Sierra Club works on energy issues throughout the year, on New Years Day we cosponsor an event that begins with presentations about energy and environmental justice, but also includes music and dancing. Community enthusiasm is high, and merry makers are not deterred by howling wind or rain coming down in sheets, as we had this year.

Speakers at this year's environmental justice rally in Woods Hole included State Representative

Matthew Patrick and his wife Louise Patrick. This husband-and-wife team both served in the Peace Corps in West Africa during the 1970s. Representative Patrick has long been involved with energy and environmental protection projects on Cape Cod. Ms. Patrick directs the human services program in Mashpee and is an expert on fuel assistance programs. The Patricks spoke about home heating and lighting and also addressed the need for improvements in public transportation in rural areas, where people are dependent on automobiles. People who don't have cars become marginalized and often lack access to employment and basic services.

"Energy issues are human rights issues" is one of the slogans now being raised by the Cape Cod Group. By taking an environmental justice approach to global warming and other energy concerns, environmentalists are helping their communities to become more responsive to social justice needs.

As the population ages on Cape Cod and in much of America, more people will have to reduce their dependence on automobiles; building public transportation systems for elders and their caregivers will become increasingly important.

"Energy issues are human rights issues" is one of the slogans now being raised by the Cape Cod Group. By taking an environmental justice approach to global warming and other energy concerns, environmentalists are helping their communities to become more responsive to social justice needs. It's good news for the low-income people and others who are under constant pressure to pay for the high cost of energy.

Bob Murphy, who has been an environmental justice advocate for many years, is the vice-chairman of the Cape Cod Group. He's active in the weatherization and fuel assistance program on Cape Cod. f you are looking to get involved with a wonderful organization that serves a great cause, we are the organization for you! The Sierra Club is a grassroots organization that offers many rewarding opportunities for volunteers to get involved and change our communities. Look through the listings below, then drop us an email at volunteer@sierraclubmass.org — and we can help you get started.

Get Active -Volunteer with the Sierra Club!

Accounting/Treasurer: The Treasurer oversees and helps plan the chapter budget, oversees the bookkeeping, and files the year-end reports. An accounting or financial background is required. Volunteers who can help with general accounting help (at the office) are also needed.

Webmaster: We need help with our website fixing broken links, reorganizing pages, and adding or editing content. Dreamweaver knowledge is required.

Chapter Political Committee: Focusing on electoral politics, this committee's volunteers help our endorsement process. We investigate the voting records of incumbents, issue and analyze questionnaires, and discuss the candidacy of legislators. All Sierra members who are not legally prohibited from work on electoral and endorsement activities are welcome.

Writers and photographers for the Sierran: The Massachusetts Chapter publishes a quarterly newsletter, "Massachusetts Sierran." We're looking for volunteer writers and photographers.

Energy Committee: This committee works on many issues including the Regional Greenhouse Gas Initiative, wind farms, Liquified Natural Gas, and air quality issues. Technical expertise is always appreciated, but you don't need to be an expert! Anyone who is interested can help and learn.

Energy Committee – Outreach Program: Teach residents, home and business owners the bottom line benefits of conservation and their green power options, as well as the environmental benefits of energy efficiency. Volunteer opportunities include speaking, event set-up, and event planning. Energy related knowledge is welcomed but not required. All you need is dedication and a willingness to help out when needed. Energy Committee – Cool Cities Campaign: Work with your city or town if it has signed on to the Mayors' Protection Agreement to help it reach its goal. Or, help get your city or town to sign on. Contact us to learn more about the campaign.

Transportation Committee: This committee works on local, regional and national transportation issues. Help the fight to connect North and South station or push for expanded local and regional rail. We also work on the environmental impacts of air travel and airports.

Sierra Club Meetup Co-Chair: Our Greater Boston Group's monthly "Sierra Club & Beer" nights have been enormously successful. We need help with some of the details and offering sign-ups.

Local Group Action: The Sierra Club supports and helps maintain local and regional groups. We're in the process of starting groups in the Concord and Hull areas. We're also gearing up to reactivate our Berkshire, Pioneer Valley, South Shore and Thoreau groups.

Fundraising: Help with house parties, mailings, organizing. The chapter's fundraising committee raises funds for conservation issues through a variety of means: direct solicitation, foundation fundraising, special events, and sales of Sierra Club items such as calendars. Especially needed is a "store manager" to fill occasional orders for calendars, hats, bags, etc.

Outings: Volunteers are needed to organize and lead outings such as hikes, bike trips, canoe trips and backpacking trips for members. The current coordinator is retiring and looking for a replacement to handle the recruitment and manage the outings program.

Legislative Action Committee: Learn to Lobby! It's fun — and is one of the most powerful tools that the chapter has in affecting environmental protections. We sponsor and support many environmental bills and this committee covers all the aspects of legislation: writing bills, testifying at hearings, lobbying and making calls to legislators, and contacting the press about important legislative issues.

Inner City Outings: This program brings the outdoor experience to youth who live in urban areas. Assistance is always needed and appreciated. Volunteers accompany youth from various organizations on hikes and outings, interact with the kids and support the leaders. No prior experience is necessary, just a desire to help out and have fun! We also need trip leaders — training provided.

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McColm). Mention this ad and 5% of your rental goes to your local Chapter.

Canyon Creek Resort and Outdoor Education Centre

Old Growth Forest in Massachusetts: The Threat to Hemlocks

by Sara Carlisle

7hen walking through the old growth stands of Massachusetts, you may note an alarming amount of hemlock. This dominance is chiefly due to the fact that hemlock was not desirable for lumber during this area's development. While harder than some soft woods, hemlocks' soft and knotty innards prevented early settlers from trekking up a mountain to cut them down. On accessible terrain, hemlocks were felled for their bark, which was used to tan leather, and the remaining wood was either left to rot or used for railroad ties. Uncut, a hemlock can live up to 900 years, and the largest one on record is 165 feet tall with a girth of 202 inches.

Unfortunately these wonderful and unique stands are under attack, and the assault is not led by developers or loggers, but rather an insect. Hemlock wooly adelgid (HWA) is an exotic insect that is destroying Eastern and Carolina hemlocks. HWA was introduced from Japan to the Pacific Northwest in 1924, and spread to the Northeast by the 1950s. This pest has since spread from southern New England to North Carolina. The insect feeds by sucking the sap from the branches of hemlocks and if not controlled, an infected tree will die within three to four years.

HWA spreads to different trees by animals, humans, and the wind and appears as small white cottony puffs found at the base of a tree's needles. The harmful insect is thought to inject toxins into the tree while it feeds. which leads to accelerated needle loss and branch dieback. Infected trees take on a gravish-green hue as opposed to their natural shiny dark green coloring. The insect prefers mature trees living in stressed conditions making the trees more vulnerable. In New England they have a tendency to attack the lower branches first. HWA has recently been discovered in the Harvard Forest in central Massachusetts; scientists there have launched an intensive monitoring study.

There are many conditions that can affect the incidence of HWA. Drought and fungi will stress the trees and cause them to be more vulnerable to insect attack, while cold snaps, low winter temperatures, and severe thunderstorms can diminish pest populations. In mountainous regions the upper third of hemlock trees have been found to have no HWA since the conditions are harsher than the infected lower two-thirds.

The ramifications of this disease are enormous. Hemlock is widely sold by plant nurseries in addi-

tion to playing a crucial role in wildlife ecology, watershed protection and water quality. Several neo-tropical birds, including black-throated green warblers, Blackburnian warblers, Canada warblers, and blue-throated vireos, nest almost exclusively in hemlock stands. The great horned and barred owls prefer hemlocks for their nesting sites, and our state bird, the chickadee, shelters in these majestic trees as well. Watersheds that are dominated by hemlocks have been found to have 37 percent more species diversity than mixed hardwood forests. The low sweeping branches characteristic of these trees mediate ground temperatures during the winter and help to keep streams ice free. They have also been found to act as hydrologic buffers and reduce the effects of droughts or floods.

Diseased and dying hemlock forests don't simply stop providing these benefits, they cause complete chaos. Dead trees are easily blown over by strong winds. Those that land in streams cause debris dams which can move with floods and wreak havoc on bridges, fields, homes, and roads. In an area of dead trees, invasive species are quick to move in, and create a totally differ-



Old hemlock suffering from wooly adelgid

ent habitat that dries much more easily, thereby lessening the biodiversity.

Fortunately there is hope for these majestic trees, and it comes in the form of a systematic insecticide called imidacloprid. This treatment is applied by either drenching the soil or injecting it directly into the trunk. In a study conducted by Ralph Webb and others in 2003, infected trees that underwent this treatment showed astonishing changes. Hemlocks with no new growth and dieback were found to recover quickly and densely under the aid of this insecticide. In addition to this treatment there are several other promising means of rehabilitating infected trees, the most common being dousing the tree with a non-toxic spray that covers the adult before it has a chance to lay eggs and asphyxiates it. The last and perhaps slightly more interesting alternative is introducing the Asian parasites natural predator, a Japanese ladybug that has a huge appetite for the hemlock wooly adelgid.

Sara Carlisle is a student at Hampshire College, where she has been studying old growth forests. This is the second of a series of articles.

Moving Ahead Against Climate Change

by Blossom Hoag

Although the United States has refused to sign on to protocols for reducing greenhouse gas emissions, much of the rest of the world is moving ahead to reduce emissions and deal with climate change. The United Nations held the most recent Climate Change Conference (UNCCC) in November 2006 in Nairobi, Kenya.

Tyla Matteson from Virginia and Ethan Hoag and I from Massachusetts attended the conference as Sierra Club representatives under the Climate Action Network (CAN) umbrella. We had attended the UNCCC in Montreal last year and wanted to continue our commitment to global warming and climate change.

The Sierra Club representatives made contact with like-minded people from around the world and developed a more complete understanding of the problems that other countries face. We spent a lot of time dispelling the misinformation put out by Paula Dubriansky, US Secretary of Environment and Public Works. She said there was not much difference between Republicans and Democrats in their perception of climate change. Dubriansky also mentioned the US had spent \$59 billion around the world primarily in renewables and energy efficiency, which isn't entirely true: the spending includes research in hydrogen, nuclear, carbon capture and sequestration, and methane, as well as renewable energy. All US officials denied any urgency to the problem; one even questioned the reality of global warming and insisted that it is a hoax, claiming that the environmental orga-



Blossom Hoag and Khaire Parrè plan strategy at the UN Climate Change Conference in Nairobi

nizations — mentioning the Sierra Club by name — were the slickest lobbyists in Washington with huge budgets, and had created media frenzy around global climate change. At many of the press briefings, media questions were often directed toward the change of direction in the US policy on climate change as a result of the November elections.

While many wished that a lot more had come out of this conference, it is still heartening to know that the process will continue, and with any luck, the US will surprise everyone and join it much sooner than anticipated.

Blossom Hoag is a long-time activist in the chapter and a member of the chapter's energy committee.

You can get involved in reducing greenhouse gases — and you don't have to travel around the world to do it! The Sierra Club has a "Cool Cities" campaign working at the local level around the country. Over 380 cities and towns have signed on. Has yours? If it has, is it following through? To get involved, see the article on volunteering with the Sierra Club elsewhere in this Sierran, or sign up for Cool Cities training.

Inner City Outings Receives Grant

The Sierra Club Inner City Outings (ICO) Program in The Sierra Club Inner City Outings (12-2) Boston is excited to announce an \$11,000 donation from the employees of the Bridgespan Group, a Bostonbased nonprofit organization that applies leading-edge management strategies, tools, and talent to help other nonprofits and foundations achieve greater social impact. This unprecedented donation was initiated by Boston ICO leader and Bridgespan employee Maddy Niebauer. Each year, Bridgespan employees organize an effort to select a local charity to which they can donate time and money, and this year Boston ICO was chosen. The objectives of this donation are to provide opportunities for direct, hands-on learning opportunities for Bridgespan staff and to create significant relationships with small, local nonprofits. •••



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See the website for latest updates: http://www.sierraclub.org/rcc/northeast/index.asp

BOOK REVIEW: Bernd Heinrich, Naturalist and Author



review by Elisa Campbell

If you are looking for something fun to read, I highly recommend the natural history books by Bernd Heinrich. Heinrich is a professor of biology at the University of Vermont whose fascination with the lives of the animals and plants around him is contagious. He is constantly wondering about what he has noticed, thinking of possible explanations, and then exploring and experimenting to find out if his supposition is correct. Heinrich's books are a delight to read, and I come to the end of each one knowing much more about our fellow creatures.

Most of Heinrich's writing is set in western Maine, on an abandoned overgrown farm that he purchased in 1977. The Trees in My Forest is an exploration of that land: a swamp, pond and stream bordered by alders; forests of various ages and species, including white pines, firs and spruces, plus an old orchard growing up into a sugar maple grove. He discusses the little "ground pines" that creep along the ground, as well as the towering white pines that 300 years ago were marked with the "Broad Arrow" that reserved them for the masts of the king's ships. During an ice storm he explores why some trees survive unscathed while others are toppled or lose huge branches. He describes his futile efforts to keep some of his old apple trees alive by removing the trees that had overtopped them — they die promptly from the sudden exposure to direct sunlight. The reader learns about types of wood, how trees know when to leaf out, and how pollination occurs in several different species. Since Heinrich several times had foresters thin some of his woods, (working toward a more diverse forest than the ones that grew up on abandoned farm fields), he also experimented with different types of equipment used for the cuttings — man and horse, man and skidder, and a crew with big machines (feller-buncher, grapler-skidder and delimber).

Several of the books have a central question Heinrich tries to answer. For example, in *The Mind of the Raven*, he tries to understand the social behavior of these intelligent birds. In *Winter World: The Ingenuity of Animal Survival*, he goes in search of how a tiny bird, the golden-crowned kinglet, can survive winter in Maine or Alaska — and along the way, he tells us how such varied animals as weasels, flying squirrels, frogs, mice, bears, bats and several kinds of insects manage to do so. I won't spoil the suspense by revealing his answers!

Heinrich illustrates his books with his own drawings and photographs, which add to the charm as well as to the informative content of the books. In addition to the books I have mentioned, he has written about bumblebees, owls and human runners. Many of his books are available in paper back. If you live, vacation or recreate in western Massachusetts, northern New England, or nearby mountains and forests, you will learn fascinating facts about your companions; I predict that if you read one of these books, you'll go on a quest for the others.



by Alexandra Dawson

When people try to combat projects they think damage the natural environment, they generally think first of using the state Wetland Protection Act. The trouble with that venerable law is, it does not apply at all to activities, however massive, that are not within, or in close proximity to, wetlands, floodplains, rivers, or coastal features like beaches and dunes. How about the laws that protect rare species of animals and plants? The limitation of the Massachusetts Endangered Species Act is that it only applies where threatened species are located on atlases prepared by the Natural Heritage and Endangered Species Program found within the state Division of Fisheries and Wildlife.

A statute with far broader jurisdiction is the Massachusetts Environmental Policy Act (MEPA). This law requires proponents to prepare lengthy studies called Environmental Impact Reports (EIRs) for large projects that meet its thresholds. Preparation of an EIR requires a lot of work and time, and can accomplish the following:

- prevent a hasty rush to construction which, once begun, is almost impossible to stop;
- assemble a huge amount of information about the project, its environmental setting and alternative designs;
- create an opportunity for state-wide, rather than merely local, publicity and critical comment;
- lead to better design or even sometimes abandonment of the project.

But first of all, the project must meet not just one but two separate thresholds before the MEPA office, part of the Executive Office of Environmental Affairs (EOEA) will take any interest in it:

• It must be, at least in part, connected with a "state agency action," that is, it must need a state *permit*, must involve state *property*, or must have state *funding*; It must meet a standard for physical impact, for example, 5,000 square feet of wet-

lands fill (including isolated wetlands, which get little respect from other laws).

You may ask yourself how a big project such as a shopping mall or large subdivision would ever fail to meet these two thresholds. But many private projects do not seek state funding and are built entirely on privately owned land and do not need statelevel permits. Planning board approvals and conservation commission permits do not constitute state permits. However, a wetlands permit from the Department of Environmental Protection (DEP) is a state permit, so an appeal from a local conservation commission decision under the state Wetland Protection Act will bring the project under MEPA if and only if it also meets the physical thresholds. These are part of the MEPA regulations, published in Chapter 301, section 11 of the state Code of Massachusetts Regulations (CMR), which can be found online. A project that does not involve wetlands must meet a high threshold, usually 25 acres of land disturbance or at least 10 acres of land newly made impervious.

EIRs are mandated only for the large projects (for example, 50 acres of land disturbance). Many projects reviewed by the MEPA office are allowed to go forward without an EIR. This is where the squeaky wheel principle can have an effect. Track the project through an online document called the "Environmental Monitor" and order from the developer's engineer the **Environmental Notification Form** (ENF) that describes in some detail what is planned. Then get folks to email MEPA explaining why an EIR should be required. The support of town and city officials is helpful if you can get it.

A statute with far broader jurisdiction is the Massachusetts Environmental Policy Act (MEPA). This law requires proponents to prepare lengthy studies called Environmental Impact Reports (EIRs) for large projects that meet its thresholds.

> Why is more use not made of MEPA? True, the process is complicated, but it requires no expense or special expertise. The truth is, many good folks have a low opinion of the law. And MEPA is in many ways a very weak law. MEPA's decision not to require an EIR or to declare a lame report adequate is virtually impossible to attack in court. Environmental advocates must therefore contemplate the law more as a political than as a legal tool. Resign yourself to this approach and you can go far by dogging the process relentlessly.

> Alexandra Dawson is an environmental attorney who lives in Hadley, Massachusetts. Among other things, she writes environmental regulations and handbooks about them.

MEPA Regulations Online: http://www.lawlib.state.ma.us/ 300-399cmr.html



Our Zoning Gobbles Up Energy

by Gil Woolley

The single most important obstacle I in the US to reducing dependence on imported oil and our disproportionate generation of carbon dioxide (CO_2) is the settlement pattern that has grown up over the past hundred years. Apart from a few older cities, most Americans are almost totally dependent on their personal automobiles for essential journeys to work, stores, church, public offices, and entertainment. In 1900 most jobs were in towns and cities, and workers who lived in suburbs commuted by rail or subway. Many still do, but others work in another suburb not accessible by public transportation. Stores, as well as sporting and entertainment events, were also in central areas.

There is a high probability that competition for oil supplies from the rapidly growing Asian economies will soon raise the price of fuel to a level which will make long distance auto commuting too expensive for most people. It is questionable whether alternative fuels, such as ethanol and bio diesel, can provide an adequate lowcost alternative for vehicle fuel.

Aside from environmental concerns, it would be prudent to guide development towards less energy-intensive patterns. Massachusetts state government recognized this need when it adopted a "Smart Growth" policy that encourages development in areas easily accessible to public transportation. But in the commonwealth most land use decisions are made at the local level, and many towns and cities have zoning regulations that discourage Smart Growth.

The most obvious example is large single-lot zoning in the outer suburbs — two or even four acres. This sprawled-out pattern practically requires every adult family member to have use of a car in order to get to work, school, stores and every place else. It also adds to the cost of utilities, school buses, and snow plowing and results in open space continuing to be gobbled up.

A less obvious obstacle to more energy efficient residential patterns is "single use zoning" that separates residential and business districts. "Mixed use zoning," on the other hand, allows residential construction over retail and office space. When these areas are within easy walking distance of subway or light rails service, many people can be less car dependent, even if they continue to own a car for recreational use. With a larger base of customers within walking distance, grocery, hardware and clothing stores will locate in the area, further reducing auto dependence. For many single-person households and childless couples, such areas are attractive places to live.

Allowing more retail and commerce in primarily residential communities offers some of the same advantages, but will probably meet sufficient resistance from residents to prevent it from happening soon.

Suburban zoning which allows people to live closer together has many advantages. It allows people to get to know each other. When walking to the store, library, local restaurant, or church, you are much more likely to meet neighbors and people you have met before. Children and teenagers meet casually on the streets, and are likely to be better behaved when they know that neighbors and friends of their parents may be around. In short, the anonymous suburb becomes a community.

Then there is health. When many activities involve walking, we get a lot of moderate exercise without the need to schedule time at the gym.

And don't forget the dollars and cents. Not needing a second (or third) car saves a lot of money on finance charges, taxes and insurance, as well as gasoline.

I grew up in a medium density suburb of Nottingham, England. at a time when most people didn't own a car but almost all the homes were single family with a small garden. Industries, schools and colleges, major stores and entertainment, were all accessible by reasonably frequent public transportation. It must have been several times as energy efficient as similar suburbs in the US and I don't remember it as being a hardship.

Like it or not, sooner or later low cost gasoline will be a thing of the past, so let's start preparing for it now.

Gil Woolley has been active in the Sierra Club in Massachusetts for over 30 years, and is a frequent contributor to the Sierran.



Global Warming Event

On December 16, Congressman Marty Meehan hosted a conference on the health impacts of global warming. Among those attending were then-Chapter Chair Mary Ann Nelson, Essex Group Chair Kevin McCarthy (left), and Ian Bowles (right), now the Secretary of Environment and Energy for Massachusetts.

Bird Habitats

(continued from page 4)

river valley areas of Massachusetts, but all fires are strictly controlled today to protect human health and property. Wind disturbance still occurs, but forest structure and composition have been highly modified by humans over the past 300 years, and today's forests are dominated by 70 to 90-year-old trees which are less susceptible to windthrow than old-growth trees that likely dominated the landscape prior to European settlement.

The middle-aged trees that dominate the forest in Massachusetts are a result both of historic land use (farms abandoned in the 19th and 20th centuries growing up into forests) and the fact that trees in southern New England typically reach financial maturity at about 75 years of age (that is, their value as timber no longer increases as rapidly as they grow older). Trees are often harvested in a selective manner that retains about two-thirds of all overstory trees, which is fine for growing trees but does not provide adequate open habitat for early-successional species of wildlife.

In the meantime, abandoned fields continue to decline throughout Massachusetts as farmlands are lost to development. Abandoned fields that are maintained as early-successional habitats are an excellent habitat for wildlife. But it is expensive to maintain these habitats (the average cost is around \$50 an acre each year) and there are few secure, long-term funding sources available to support this important conservation work. Limited funding is available to private landowners in Massachusetts through the Division of Fisheries and Wildlife Landowner Incentive Program (see website below).

If Massachusetts is to continue being a "home" to a variety of native bird species, humans must introduce the needed disturbances in forests. Mass Fisheries and Wildlife manages its lands with overall species diversity as its goal. For private landowners wishing to provide this needed habitat, some budgetary help would be useful. Possibilities include establishing dedicated funding for abandoned field management through passage of legislation such as the proposed Conservation and Reinvestment Act. Also helpful would be the permitting and construction of small co-generation energy facilities that provide a market for some wood products that are not commercially valuable. That market could facilitate heavier regeneration cutting on some Massachusetts forestlands.

John Scanlon is the Forestry Project Leader for the Division of Fisheries and Wildlife.

Information on the web:

Division of Fisheries and Wildlife Landowner Incentive Program http://www.mass.gov/dfwele/dfw/dfw_lip.htm Early-successional habitat for wildlife http://www.mass.gov/dfwele/dfw/bdi/bdihome.htm Conservation and Reinvestment Act http://www.mass.gov/dfwele/dfw/dfwcoal.htm

Green Maps

by Jerrad Pierce

A Green Map, as the name implies, is an environmentally themed map which plots the location of a variety of culturally significant resources. Mapped features are anything from parks to ponds, recycling centers to toxic waste sites, community gardens to farmers' markets, ferries to bike paths. The purpose of such a map is to serve as a guide for sustainable living, integrating information from a variety of sources into a simple format.

Green Maps may be oriented towards tourism (Toronto), social justice (Washington D.C.), land use (Hiroshima), or whatever theme suits the author. Regardless of the focus, a carefully crafted map will likely allow readers to discern unforeseen patterns of urbanization, pollution, etc. Alas, most Bay-staters do not have access to this great tool. Only two maps have been created in Massachusetts: Cambridge and Holyoke. This is especially disappointing since we are blessed with a wealth of relevant, freely available, no-cost data from the Executive Office of Environmental Affairs' MassGIS division.

For an example of what's possible, download the Cambridge Green Map at http://CambridgeMA.GreenMap.org, or explore MassGIS data for your area at http://mass.gov/mgis/mapping.htm#OLIVER. You might also check out the online mapping tools for other free government data from many government agencies, including the US Geological Survey, Census Bureau, and the Environmental Protection Agency.

Not quite convinced you should start a project to map your neighborhood or town? Afraid of complicated mapping software? You might be interested in the stories of a few projects from around the world at http://greenatlas.org. For more details about starting up visit the Green Map System web site at http://greenmap.org

Jerrad Pierce is a Sierra Club member studying environmental policy and is also the creator of the Cambridge Green Map.

Sierra Club Activist Outings Highlight Adventure and Advocacy

by Vicky Hoover

Every year the Sierra Club nation-Eal outings program features several special trips that inform participants about the issues surrounding their particular trip and train them on how to advocate effectively for the relevant campaign. Wilderness and other preservation campaigns are the chief focus for 2007's seven activist trips, which will be in West Virginia, Alaska, California, Utah, New Mexico, Washington, and Nevada.

To see the trip descriptions and costs, go to http://www.sierra club.org/outings/ national/ Select Trip Types, then select Activist Trips.*

For more information, including details about partial scholarships that are available, contact Activist Outings Chair Vicky Hoover at vicky.hoover@sierraclub.org or 415-977-5527

Vote! National Club Elections Coming Soon

The Sierra Club is unusual among national environmental organizations because it is a democracy. The Board of Directors, which sets Club policy and budgets, is required to stand for election by the membership. Voting for candidates who express your views on how the Club should grow and change is your right, privilege, and even responsibility as a member.

Ballots are sent to qualified members in March. The Club's election website — http://www.sierraclub.org/ bod/2007election — provides links to information about candidates, and their views on a variety of issues facing the Club and the environment. You may also ask chapter leaders for further information.

Please read the candidates' ballot statements and cast your votes. You will find the ballot is quite straightforward and easy to mark. A growing number of members find the user-friendly Internet voting option to be very convenient and a money-saver on postage.



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EVENTS HULL SUSTAINABLE LIVING FESTIVAL

April 21

MJM Bathhouse, Hull

VOLUNTEER: Help would be appreciated at the Sierra Club table at this event. Please contact Blossom Hoag mb.hoag@verizon.net

ENJOY: Come to the event even if you do not have the time to volunteer. Learn how and what Hull is doing to lead the way on environmental projects. Contact Blossom Hoag at mb.hoag@verizon.net or 617-567-4749

NATIONAL DAY OF CLIMATE CHANGE

April 14

The Cape Cod Group is planning activities. For information, contact Bob Murphy at capeminister@yahoo.com

SIERRA CLUB NORTHEAST REGIONAL COMMITTEE

Spring Meeting: May 31 – June 3, 2007 Maine/NH (TBA)

Autumn Meeting: October 19 – 21, 2007 Location TBA

More information will come closer to the date. Check the website, or contact Blossom Hoag mb.hoag@verizon.net

ANNOUNCMENTS

FIFTH ANNUAL NORTHEAST STUDENT ENERGY SUMMIT

March 23 – 25

Boston

Come train with students from across the Northeast working on climate change and energy issues so you can push for clean energy policies on your campus, in your community and in your state. We will also join the Interfaith March for Climate Rescue at their rally on March 24, 2007.

For more information and to register, go to www.ssc.org/nesummit

BIO BLITZ AT ROBINSON STATE PARK June 21 (tentative)

A 24-hour intense study of Robinson to learn as much as possible about its ecology, is being planned by The Friends of Robinson State Park. For information, email Ray Weber at admin@ndws.com, or call 413-883-8005.



Fringed polygala

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Massachusetts Chapter Outings

"E" indicates educational content

The Chapter Outings Chair seeks a volunteer trainee to assist with oversight of the Outings Program. Contact Deborah at holtdj@verizon.net for information.

BROOK MODEL FOREST EXPLORATION HIKE (OR POSSIBLY SNOWSHOE), COOLEYVILLE IN NEW SALEM – PIONEER VALLEY GROUP (E)

March 31; Raindate April 1 Time: 9:30 AM Contact Elisa at campbell@oit.umass.edu or 413-256-4247

WALDEN POND (E)

April 7 Time: 11 AM Contact Darlene at darleneteves@yahoo.com DOG

TOWN HIKE – GLOUCESTER – GREATER BOSTON GROUP (E)

April 8 Time: 10 AM Contact Deborah at holtdj@verizon.net or 617-227-8898

HARVESTING AND STEWARDSHIP WORKSHOP IN THE FIELD, GREENFIELD – CO-SPONSORED BY PIONEER VALLEY GROUP (E) April 14

Time: 9:30 AM Contact Elisa at campbell@oit.umass.edu or 413-256-4247

DUXBURY BEACH WALK – GREATER BOSTON GROUP (E)

May 20 Time: 9 AM Contact Jay at ecotourjay2002@yahoo.com or 617-924-1176

MIDDLESEX FELLS HIKE – GREATER BOSTON GROUP (E)

June 3 Time: 10 AM Contact Deborah at holtdj@verizon.net or 617-227-8898

QUABBIN HIKE – PIONEER VALLEY GROUP June 10 Time: 10 AM Contact Elisa at campbell@oit.umass.edu or 413-256-4247

WILD EDIBLES WALK ON THE SOLSTICE WITH RUSS COHEN, WESTON – CO-SPONSORED BY GREATER BOSTON GROUP (E) June 21

Time: 5:45 PM Contact Deborah at holtdj@verizon.net or 617-227-8898

Please note that an outing may be cancelled for insufficient interest up to three days before the scheduled date. If you are interested in an outing, do not wait until the last minute to contact the leader.





Join park advocates, state agency personnel and people from dozens of supporting organizations in a working session to celebrate and further invest in Massachusetts' public lands. Everyone is invited. To register, visit:

www.conservationandrecreationcampaign.org

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For more information, call (895) MAS-CAMP or visit www.wildwoodcamp.org.

A Mass Audubon

GROUP & CHAPTER MEETINGS

All meetings at Sierra Club Office, 100 Boylston St, Boston, unless otherwise noted.

CHAPTER TRANSPORTATION COMMITTEE

April 19; June 21

Time: 7 – 9 PM

We've been active despite the holidays, participating in the Deval Patrick transition process and assisting the Washington Street Corridor Coalition in putting on public workshops about the "Silver Line" and the light rail alternative for that major transit artery. Come to our meeting to learn more about what we're doing, and how to become involved in the fight for environmental justice in public transportation planning in Boston.

Contact John Kyper at jkyper@gis.net or 617-445-8662

GREATER BOSTON GROUP EXCOM

Meetings are on the second Tuesday of each month Address correspondence to the attention of the Greater Boston Group at gbg@sierraclubmass.org

CHAPTER POLITICAL COMMITTEE

March 14; April 11; May 9; June 13; July 11 Time: 6:30 PM

In the next election, we'll be endorsing in the state's major mayoral and city council/alderman races — and we need your input. Visit the chapter website where we give all Sierra members an opportunity to tell us about their local elected officials. We're also seeking committee members and volunteers to help elect pro-environment legislators. Drop by our next meeting!

Contact Dan Proctor, committee Co-Chair, at cpc@sierraclubmass.org for more information.



Create an Environmental Legacy.

equests have played a key role in the Sierra Club's environmental accesses over the years.

Planning now may make your gift more meaningful and reduce taxes on your estate. We have many gift options available. We can even help you plan a gift for your local Chapter. For more information and confidential assistance, contact:

John Calaway

Director, Gift Planning 85 Second Street, 2nd Floor, San Francisco, GA 94105 (415) 977-5639 or e-mail: planned.giving@sierraclub.org

www.sierraclubmass.org

Snowdrop



Massachusetts Chapter Sierra Club

100 Boylston Street, Suite 760 Boston, MA 02116 617-423-5775

office@sierraclubmass.org www.sierraclubmass.org

Postmaster:

Send all address changes (PS form 3579) to: Sierra Club Membership, 85 Second Street, 2nd Floor San Francisco, CA 94105