



Volume XXXI, Fall/Winter

December 2010

A Word from the President

Dear Members and Friends - 2010 is rapidly coming to a close and the holiday season is upon us. During the past year the Trust has embarked on a re-branding effort. This is evidenced by our new logo that you see at the top of this page. In addition, the Trust has changed its structure from one governed by a Board of Directors only, to one of open membership where the members will decide on who is elected to the Board. In order to have a voice at the election during the annual meeting that the Trust is planning in either June or September 2011 (where we can get the maximum number of members to the meeting), you the general public, need to take action to sign up for membership. This can be done by going to the last page of the newsletter, filling out the form, and sending it to the Trust with your new member dues. Family membership is listed at \$30, but if you are so inclined, you can join at one of the higher levels listed. Please note that it is most important for you to provide your Email address so that we can communicate with you directly. The Trust expects to deliver the Newsletter via Email in the future and the only way we can do that is to have your Email address. The other big part of rebranding is that the Trust now has a new website at http://www.hopkintonlandtrust.org. Please take a look and let me know what you think. You can send me an Email at goldmands@gmail.com with your comments. As an incentive to join us, the Trust has obtained some gifts donated by REI (2 day Packs) and from Eastern Mountain Sports/Marlborough/Solomon Pond (EMS) (2 \$100 Coupons toward equipment rentals) that the Trust plans to provide to some new members, drawn from a list of folks who join, with a cutoff date of February 15, 2011.

The Trust has arranged to have new trail head signs erected at Wiley Woods, Sands Trail, Brook Hollow/DeGozzaldi Trail, the Deer Run/Andersen's Trail and the Whitehall Conservation Area entrance. These signs are similar to the sign that is at the entrance to the Center Trail opposite Hopkinton Lumber on Main Street. The Trust expects to have similar trail head signs at all of our properties and trails. Another exciting development is that the Trust will be placing at least one Geo-cache on every trail and every property that the Trust owns. Geo-caching is a fun activity and this will help increase usage of the trails and properties.

Finally, I want to take this opportunity to wish each and every one of you a Happy Holiday season, be it Christmas, Hanukkah, or whatever year end season you celebrate. In addition, have a Happy and Healthy New Year.

David Goldman, President

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SPEAKING FOR THE TREES

In the middle of the 1800s, "the progress of civilization" as deforestation was called, had reduced tree cover across New England from most of the landscape to as low as 30 percent in Massachusetts, Rhode Island and Connecticut. Forests were cleared for farms and cut for timber and for fuel – New England through the early 1800s needed the wood from more than a million acres a year on average just to heat its homes. To the early emigrants from the 10 percent forested English landscape, the trees here seemed limitless.

As farmland moved west, coal replaced fuel wood, and replanting made timbering more sustainable, so that today forests have reclaimed nearly 80 percent of the land between Long Island Sound and Canada, with individual New England states ranging from 50 percent forestland in the south to closer to 90 percent in Maine. Forests cover about 60 percent of Massachusett's 5 million acres.

While this comeback has been remarkable, the great regreening is slipping in every state of the region. The historic concentrating of people in cities and town centers, which allowed burgeoning forests and humanity to coexist, has been giving way to suburban sprawl and rural second home development; the trend began in the last few decades in Massachusetts, Rhode Island and Connecticut and more recently in other New England states.

Last spring, 20 ecologists and policy experts released "Wildlands and Woodlands: A Vision for the New England Landscape." The 36 page report imagines New England half a century from now with more people and more development, but also with at least 70 percent of its 42 million acres permanently protected as forests. That would include some 3 million acres – so called wildlands-to be left largely unmanaged by humans, becoming the kind of old growth that now covers only about 53,000 acres. Achieving the overall 30 million acre conservation goal would mean tripling the current amount of forest off-limits to more development and doubling the rate at which forests are being protected.

While its ambitions are large and deeply green, the report envisions anything but a "lock it up" approach. And it depends on hundreds of thousands of private landowners agreeing to forgo development on their properties, whether for financial or environmental or altruistic reasons. These owners, while individually holding small parcels, account for more than half of New England forests.

In Massachusetts, local land trusts are already broadening their forestland protection ambitions. The Patrick administration has pledged to spend \$50 million a year from environmental bonds for more land protection. Between 1999 and 2005, the state actually protected substantially more open space than it lost, about 110,000 acres versus 47,600 claimed by development, according to Mass Audobon's recent "Losing Ground" study. Even so, it will take 85 years to meet the 50-year goals for Wildlands and Woodlands report.

Fulfilling the grand vision is going to happen locally, the multimillion acre forest goals stitched together from literally hundreds of thousands of little woodlands. That's because in much of New England the bulk of the forest is owned by small, private landowners. In Massachusetts alone, more than 212,000 private landowners hold more than 75 percent of the state's forests.

Funds from grants, private donors and environmental bonds are being used to protect the forests. Local land owners protect their respective patches of forest and open space by placing them under a conservation restrictions, usually held by a local land trust or government agency, let owners keep their land but legally give up the right to develop it in return for a federal income tax break.

Further, New England forests are performing billions of dollars' worth of "ecosystem services", cleaning air and water, removing carbon at a globally significant level, recharging underground drinking water supplies, and supporting eco-tourism.

The forests of the future are comprised of many small blocks of land, contain special habitats, serve our needs for fiber and lumber, and are connected in big blocks and corridors for wildlife to roam – a true green infrastructure.

Adapted from "Speaking For the Trees", Boston Globe Magazine, October 10, 2010

ANIMAL ADAPTIONS FOR WINTER SURVIVAL

As we all know, in New England winter is a time of short daylight and cold nights. But we have multi-zone heat at our fingertips, insulated houses and electric blankets. But how do animals survive the winter? Three major ways to survive: hibernation, adaptation and migration.

Hibernation is a time when animals sleep through the winter to avoid the cold weather and conserve energy. Animals eat more food than usual during the fall so they can live off their body fat as they sleep for several days or weeks. The animal's breathing and heart beat slow down and usually their body temperature drops to match the outside temperature. Examples of hibernating animals: bears, frogs, bats, & raccoons.

Groundhogs, chipmunks and some local bats have the ability to lower their heart rates, respiration and body temperature in a state of hibernation. This allows them to get through the winter using up very little of their energy supply.

One animal that prepares and adapts to the changing climate during the winter months is the deer. Deer get ready for the cold temperatures by storing fat in the summer and fall and by shedding a reddish summer coat for a much warmer, thicker winter coat. Deer usually feed during the day when is it warmer and become less active in periods of bad weather so they can conserve their energy. Also, they develop a network of trails as they travel to and from feeding, and keep them open for easy travel and ability to escape from predators.

Those animals that stay active throughout the winter have evolved ways to make it through until spring. Birds and mammals have feathers and fur that are good insulators, trapping warm air close to their bodies. Squirrels for instance, use their large, fluffy tails as windbreaks to protect their backs and heads. Foxes wrap their long furry tails around their faces to keep them warm while they sleep. And birds fluff up their feathers to allow for a larger area of warm air around their bodies.

Many geese spend the spring and summer seasons from Alaska, northern Canada, and northern United States and migrate as far south as Northern Mexico in the winter.

Before migration occurs, geese complete practice flights and landings and also eat a lot to give them enough strength for their journey. They migrate in flocks, which vary in size depending on the race, region, and season, but smaller geese typically migrate in larger flocks. Geese fly in the flying V formation to increase their flight range. The leader breaks through the wind resistance allowing the others to glide more easily. Geese can reach speeds from 30 to 60 mph and can fly at many altitudes depending on the weather. When there are overcast skies, geese typically fly a few hundred feet above the ground, yet altitudes of 8,000 feet can be reached on a fair day. Some geese stop for short rests but can fly thousands of miles without stopping and may fly as much as 3,000 miles in one migration season.

Migration of the Monarch Butterfly begins in late August in Canada and the northern United States and ends in the months of November and December usually in central Mexico. During migration, the butterflies feed on flowers to give them energy and contribute to the build of the fat body in the abdomen in order to complete their journey. Butterflies can travel distances of up to 3,100 miles, traveling approximately 50 miles per day at flight speeds of 12 miles per hour. They can encounter many dangers on their journey including storms, humans, and fatigue. If they do make it to their destination, butterflies cluster in large numbers in the branches and trunks of trees. Sadly, 40-60% of monarchs do not survive during their stay in Mexico.

From <u>www.nationalzoo.si.edi</u> and <u>www.wxresearch</u> org

ENDANGERED BY SPRAWL

While many human activities can alter natural habitats, the conversion of green space to urban and suburban uses is the fastest growing threat to the nation's plants, animals, and open spaces.

Decades of poorly planned commercial and residential development have taken a huge toll on the quality of both our lives and the natural environment. Even at low densities, poorly planned development can fragment natural habitats, greatly reducing the value of remaining open spaces for biodiversity, recreation, and other uses. Increased commuting times and distances increases traffic as well as air and water pollution. Roads and other

impermeable hardscapes increase storm run-off, diminish water quality, and reduce options for outdoor recreation. In all, creating the infrastructure -- the buildings, roads, sewers, and water systems -- required to accommodate and support such patterns has had the unintended effect of allocating public resources to diminish the public's health and well-being.

If development continues at prevailing densities, land will be consumed at an even faster rate than population grows, particularly in rural and suburban areas. This expanding footprint will put additional pressure on diminishing wildlife resources and their habitats, and has the potential to drive more plants and animals toward extinction.

The nation's wildlife heritage is not just restricted to the pristine habitats. As our sprawling communities push further and further out, the remaining farmland and wildlands in and around cities and suburbs disappear, taking with them the habitats on which wildlife depend.

As recent fire seasons have shown, building communities and homes in wildland areas where periodic fires are a natural phenomenon can be hazardous to property and lives. Even outside such incendiary circumstances, so long as farmland, forests, wetlands, and grasslands are protected from development, they have considerable potential conservation value.

The very nature of our communities is at stake. Why should the disappearance of plants, animals, and habitats concern everyday citizens? Because we literally cannot live without the services they collectively provide – water purification, aquifer recharge, crop pollination, carbon storage, and climate and flood regulation, to name just a few. The removal of any single species from a natural system can affect many others, leading to unpredictable chain reactions that can harm human health and economic viability.

The conversion of land from rural to urban or suburban is generally permanent, and in addition to destroying and fragmenting habitat, it often leads to further development. If the U.S. is to protect open space and its associated economic, utilitarian, recreational, aesthetic, spiritual, or intrinsic benefits for future generations, we must champion the idea that our communities plan carefully to guide development in ways that leave life-sustaining green infrastructure intact.

From www.landscope.org Adapted from Ewing, R., J. Kostyack, D. Chen, B. Stein, and M. Ernst, Wildlife (National Wildlife Federation, Smart Growth America, and NatureServe: Washington, DC, 2005).

You can take an important step for your community: Offer your leadership, political support, and charitable gifts to a land trust. Better yet, consider donating a conservation easement on your land. It is an investment in the future that offers attractive tax benefits and the satisfaction that the land you love will be protected forever.

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