



# Bangor Land Trust News

Spring 2017

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## Thinking Globally, Acting Locally

by Lucy Quimby

Sea levels are rising, ice floes are melting, growing seasons are changing, and ocean waters are becoming more acid. Our planet is heating up. Plants and animals that have adapted to one set of conditions must adapt to new circumstances. The slow increase in temperatures and increasing carbon dioxide levels are the result of the carbon dioxide and methane that human activity has put into the atmosphere. Polls show that here at home in Penobscot County over half of us think that global warming will hurt people in the United States, but most are uncertain what they can do that will make a difference. How can your local land trust help?

Land trusts all across the US have been talking about what to do. Proposed actions fall into three categories:

- conservation planning that takes changing climate conditions and wildlife needs into account,
- mitigation through carbon sequestration, and
- working with our communities to decrease our carbon footprint through land use planning and support of carbon-free energy sources like sun and wind.

Climate forecasts predict that the northeastern U.S. will get warmer and wetter. Plants and animals will gradually move north and to higher elevations to find the temperatures to which they adapted in the past.

At the same time, plants, especially trees, can help our planet by slowing climate change. They take carbon dioxide from the atmosphere and give off oxygen. The more carbon dioxide taken out of the atmosphere the better.

The New England Forestry Foundation's Alec Giffen estimates that the average acre of Maine forest removes 2/3 of a ton of carbon dioxide per acre per year. (The actual performance of an acre of forest depends on its age, composition, and other factors.) Bangor Land Trust conserves approximately 750 forested acres. Our trees thus soak up an estimated 500 tons of carbon dioxide each year. Heating the average Maine household produces roughly 11 tons of carbon dioxide per year, so we estimate that trees on BLT preserves take up the carbon dioxide emitted by heating 45 Maine households. Another way to look at this is that it takes 16½ acres of Maine forest to absorb the carbon dioxide emitted by heating the average Maine household. You can play with the figures, but it's clear that more trees help make a healthier planet. Furthermore, if we cut down trees and use the wood to make something we can keep, like a house, furniture, or a boat, the carbon stays locked up in the wood for a long time and will not heat up our planet.

The interconnection of habitat areas will become ever more important. This means that land trusts should preserve areas containing healthy and diverse ecosystems and connect them to other such areas. Bangor Land Trust is partnering with Orono Land Trust on the Caribou Bog - Penjajawoc Corridor to conserve such lands.

For the past 50 years people concerned with the health of our planet have encouraged us to "Think globally, act locally." Your support of Bangor Land Trust is helping a planet in trouble.

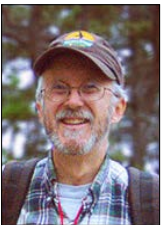
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Dear Friends,

This spring, as I looked forward to the return of flowers and birds, I began to imagine where they both had been over the winter. The flowers had been dormant in their buds or under the soil and started their miracle of regrowth cued by the same rising temperatures that led me to put my winter coat in the back of my closet.

But the birds – exactly where had they been? What sort of trip had they been on since I saw them last? I turned to the Cornell Lab of Ornithology website and to eBird.org for answers. Many of “our” birds had been in places I have never seen and probably never will. The Bobolinks, whose exuberant fly-straight-up-in-the-air song gives voice to the joy of welcoming spring, fly in from Paraguay and northern Argentina. What had they experienced in those foreign lands?

I searched the Penjajawoc bird list to see who flies the farthest. According to the Cornell Lab, “The White-rumped Sandpiper has one of the longest migration routes of any American bird, breeding in arctic Canada and wintering in southern South America. Southbound migrants fly over the Atlantic Ocean from northeastern North America to South America, then gradually move southeast along the coast before turning inland to go across the Amazon Basin, travel requiring about one month.” They travel in a fast series of long flights. One nonstop flight can be as long as 2,600 miles. Wetlands along the route are crucial to the survival of this small traveler. I am so glad that Bangor’s wetlands provide a rest stop for these intrepid travelers whose voyages put to shame my occasional jaunts to foreign climes via airplane.

Robert Ostrowski’s Nature Notes provide additional information about the contribution of the wildlife habitat provided by Bangor Land Trust to the wellbeing of our international travelers.

How we care for our habitat here at home makes a difference! Thank you all for taking care of our home in nature.

Sincerely,



**Sunday,  
September 10!**

Register online at  
[bangorlandtrust.org](http://bangorlandtrust.org)

Fully-supported routes from 12 to 100 miles. Receive the early-bird discount before July 16th. Can’t ride? Volunteer! For more information contact the BLT office at 942-1010 or [info@bangorlandtrust.org](mailto:info@bangorlandtrust.org).

When we think about protecting habitat, we tend to think about a species' breeding habitat, and for good reason. After all, an animal's most vulnerable time is usually just after birth. Adequate cover, food, and water are rarely more critical than they are during this sensitive period. What's more, we know that if parents are not reasonably successful in raising offspring, populations will ultimately suffer and so too will biodiversity and the overall health of the ecosystem.

That being said, if we limited our attention to only breeding habitat, we would be ignoring the needs that species have during other times of the year. As the days shorten and winter arrives, resources become scarcer. Many plants that provided protection in the summer are leafless in winter, insects that provided an ample food source are dead or lying dormant, and life-sustaining water bodies are frozen. Consequently, in order to survive, animals are forced to change their behaviors and, often, their locations.

Rarely is this truth more apparent than it is in birds. Even species that do not migrate, like the Black-capped Chickadee, make major changes in order to survive. Chickadees form cooperative flocks after the breeding season, cache food in the fall to prepare for more difficult times, and in the winter eat fewer caterpillars and more plant material, such as hemlock seeds. A chickadee may increase the size of its home range to 36 acres, but it will remain in Maine all winter, a powerful testament to this species' hardiness.

Other species take a different approach and rather than significantly changing their diet, migrate great distances. One such example is the Nashville Warbler. This medium-sized warbler is bright yellow below, olive above, and sports a gray head, which contrasts with its bold white eye rings. Nashville Warblers are approximately the same length and weight as chickadees, but have thinner, sharper bills which are better suited to capturing insects, and nearly useless at breaking apart tough seeds. In fact, Nashville Warblers feed almost exclusively on insects. So, rather than remaining in

Maine through the winter when insects are scarce, Nashville Warblers migrate to where they are plentiful.

In the fall, Nashville Warblers, including those that breed near Central



*Nashville Warbler - Walden-Parke, Ron Logan*

Maine Audubon has recognized Penjajawoc Marsh's importance in the global effort to preserve bird habitat. They nominated Penjajawoc Marsh and its upland habitat to be an Important Bird Area. Bird Life International and its U.S. partner, National Audubon, are working around the globe to identify and conserve areas necessary to the survival of a number of globally threatened bird species. Some of these species use Penjajawoc Marsh either to nest or as an important migratory stopover. Criteria for designation as an Important Bird Area include the presence of threatened bird species, as well as diverse and healthy populations of birds that are not threatened.

The nomination will be considered this summer by the Maine IBA Technical committee.

Penjajawoc Preserve's parking lot, gather into flocks with other migratory species and begin flying south. Along the way, they stop at second growth deciduous and mixed forests and the brushy edges to many different types of habitats to rest and refuel. Adults tend to migrate through the central U.S., while first-year birds are more likely to take a coastal route. Without quality migration habitat, Nashville Warblers are much more likely to succumb to starvation or predation.

At the end of migration, if they find adequate stopover habitat, avoid structure collisions, predators (both domestic and wild), and severe weather, Nashville Warblers will likely end up in Mexico. This means that those warblers that began their lives at Central Penjajawoc Preserve may spend their winters in the pine highlands of southern Mexico. If not in Mexico, they may spend winter in Texas, Florida, the Caribbean, or even Belize. And just as it was during breeding and migration, quality habitat is critical for winter survival. Furthermore, the more birds that survive winter, the more that will migrate in the spring to the northern United States and Canada, which will in turn determine the number of birds who attempt to breed, and the cycle continues.

Following a Nashville Warbler from Bangor to Veracruz, Mexico, reveals not just the resilience of a bird that weighs a third of an ounce, but also the interconnectedness of life on a global scale. What happens in Belize affects what happens in Bangor and vice versa. So next time you take a hike on one of our preserves, consider not only how the organisms in front of you are interacting with each other, but also think about how they may be interacting with organisms in far-off places.





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BANGOR LAND TRUST'S MISSION:  
"Protect for public benefit  
land and water in the Bangor region  
that have special ecological, natural,  
scenic, agricultural, or recreational  
significance while increasing public  
understanding of the value of  
land and water conservation."



## Persistence Pays Off!

Trail V is finally on the Maine Department of Transportation (DOT) priority list for 2018! Keep Bangor Beautiful and the City of Bangor had this trail near the top of their wish list near the turn of this century. Then in 2006 Keep Bangor Beautiful partnered with Bangor Land Trust and the City of Bangor on the Bangor Trails Project. This group began by seeking public input as to where people would like to have trails, and then it followed a painstaking process of mapping and evaluating publicly desired trails. The group produced a Trail Plan, accepted by the City Council in 2008, on the City's website as "2008 Preliminary Bangor Trails Report," and on the Bangor Land Trust website under Links & Resources. Interestingly enough, "Trail V" rose to the top when evaluated according to the 12 criteria established by the Bangor Trails Project. Then began a long process of laying it out on the ground and getting funding for the short but essential section of trail that tracks near the I-95 right of way and makes the final connection to Stillwater Avenue. The completed trail will allow walking and biking from Cascade Park to Essex Woods, with minimal exposure to motorized vehicular traffic. We owe thanks to two private foundations for grant support and to the City of Bangor for vision, planning, and engineering expertise.

