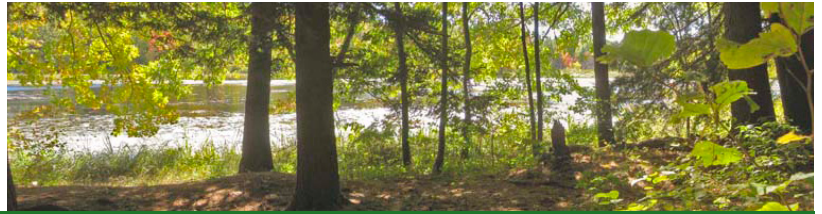


BROAD BROOK COALITION



www.broadbrookcoalition.org

Volume 28, Issue #2, Fall 2016

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About Us

Broad Brook Coalition (BBC) is a nonprofit, all-volunteer organization incorporated in 1988 with the mission of preserving open space and promoting affordable housing. Under a memorandum of understanding with the Northampton Conservation Commission, BBC is responsible for the day-to-day management of the 850-acre Fitzgerald Lake Conservation Area. BBC's goals are to maintain and enhance the diversity and integrity of wildlife species and habitat at FLCA, promote outreach and education and provide public access for passive recreation that is compatible with habitat protection.

Our work in trail maintenance, stewardship, education and land preservation to expand FLCA is funded by the generous support of our members and occasional grants.

Broad Brook Coalition Annual Meeting

Sunday, November 6, 2016 * Florence Civic Center, 5 to 7 PM

A songbird rehabilitator will be the guest speaker at Broad Brook Coalition's annual meeting on November 6. As in past years, the meeting will open at 5 pm with conversation and refreshments, followed by a brief business meeting and the speaker's presentation at 6.

Guest speaker Arlene Kiesler took in injured and orphaned songbirds for 10 years on her 30-acre property in Otis, rehabilitating them before returning the birds to the wild. Certified by the state and federal governments, she began her specialty in birds because, at the time, no mammal rehabilitator in the Berkshires was caring for birds. Robins, sparrows, crows, woodpeckers, cardinals and other songbirds were brought to her.

"My favorite are the blue jays," she said, "because they are incredibly smart and have unique personalities." Now retired and living in Pittsfield, Ms. Kiesler hasn't given up rescuing animals; her household includes a dog, cat and two parrots – a cockatiel and a conure.

President's Message

Members, Friends, Visitors and Volunteers

Though we don't often think about it this way, the Fitzgerald Lake Conservation Area actually serves two constituencies. As a conservation area, it provides a safe home for a diverse array of plants and animals that thrive, mostly undisturbed, in the forests, fields, streams, marshes and the lake itself. At the same time, the FLCA provides ample opportunities for human refreshment, whether it's hiking, running, birding, boating, fishing or nature study. Though I often write about the former constituency, it's our members, friends, visitors and volunteers that I wish to focus attention on in this message.

The ability of Broad Brook Coalition to provide a satisfying experience at the FLCA is due in large part to the generosity of our members and friends whose moral and financial support enable us to maintain the FLCA's 10 miles of trails, mount a series of guided Walks & Talks throughout the spring and summer, combat the encroachment of invasive plants, and contribute to the preservation of additional conservation land. This year, our membership reached an all time high of 232 individuals and families. We are also very appreciative of the grants we have been awarded by the Community Preservation Committee which have underpinned invasive plant control and the rehabilitation of the bridge and boardwalk near the North Farms Road entrance. We are also grateful to our co-managers, the Northampton Conservation Commission, for their continuing support and advice. Community support is our lifeblood.

continued on page 2

President's Message, continued

FLCA visitors come from near and far. Although most are from Northampton and nearby towns, I met and talked with folks from Maine, Minnesota, Illinois and Oregon this summer. The main objective of most who visit the FLCA is to spend an hour or two in a quiet wooded space. As reported by Gretchen Reynolds in the New York Times last year, a variety of studies have shown that "...a walk in the park may soothe the mind..." and actually lead to physiological changes in the brain that reduce brooding and improve mental health (NYT 7/22/2015). Many, of course, have a more specific purpose in mind: a grandfather taking his five-year old grandson on a fishing expedition; cross-country runners from local high schools and colleges training on varied terrain; second-graders getting their first glimpse of life in a marsh; participants in our guided Walks & Talks who want to learn more about the natural history of the area.

Among our most important assets are our volunteers. They maintain the trails and remove downed branches, build bog bridges that span the wet and muddy trail segments, and are proficient in making the trail signs that keep visitors on course. Through an initiative begun a few years ago, a cadre of trail stewards now carry out periodic checks of the condition of various trail sections and organize repair when necessary. Others work on the control of invasive plants on the dam, in Cooke's Pasture and along the trails. Especially notable are our annual forays onto Fitzgerald Lake to pull water chestnut, a nasty invasive that could cover the lake in a few years if left unchecked. We are particularly indebted to those who contributed over 550 hours this summer to the construction of the new bridge and the rehabilitation of the boardwalk

As we are always quick to say: we couldn't have done it without you!

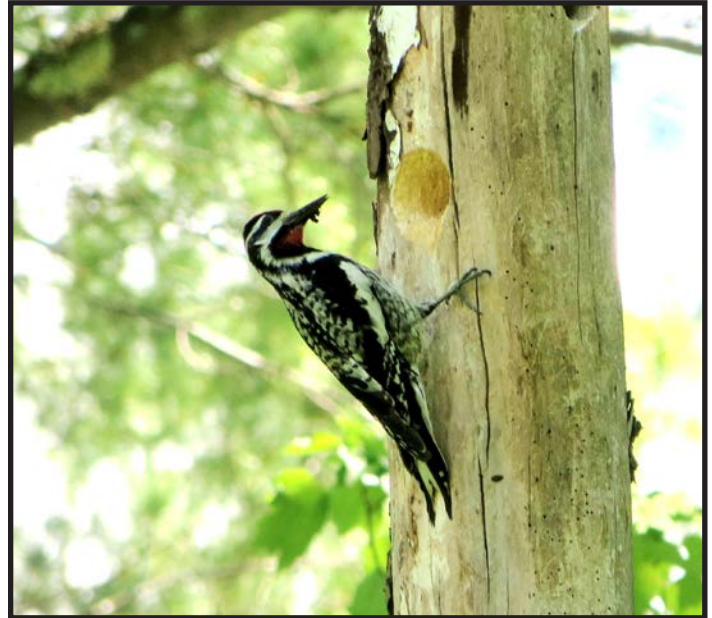
Bob Zimmermann

eBirding at Fitzgerald Lake, Part 2

Part 1 of this article, in the spring newsletter, gave a brief introduction to the eBird project—the massive citizen-science database maintained by Cornell University since 1992 where birders from around the world can list their observations.

Recording your sightings on eBird is quick and easy, but what makes it such an exciting phenomenon is not just the convenience it offers the individual birder, but the many ways in which the data can be accessed by anyone, anywhere, for a variety of purposes.

For example, I have compiled all the sightings reported from FLCA as of the fall of 2015, and came up with a total of 167 different species—more than half the total number of species that have been reported for Hampshire County as a whole. Many of these birds are seen regularly throughout the year, often in impressive numbers, as with the 836 Canada Geese reported by one birder on 11/22/12. But inevitably, when you start compiling data, it's the *rara avis* that attracts the most attention. Following are a few notes on some of the least common sightings at FLCA.



Yellow-bellied Sapsucker (Dave Pritchard)

There are 12 species that have been reported only once from Fitzgerald Lake, and in all but one case the report was of a single individual. Thus a lone Cackling Goose was sighted on 11/22/12, a lone Bonaparte's Gull on 10/14/13, and a lone Evening Grosbeak on 4/30/98. Also in this exclusive club are a Semipalmated Plover, a Semipalmated Sandpiper, an Eastern Screech Owl, a Northern Saw-whet Owl, a Merlin, a Cape May Warbler, a White-crowned Sparrow, and a Bobolink. (The Common Redpoll was also reported only once, on 2/24/04, but in this case there were 8 individuals.)

Does this mean that these lone birds are rare or unusual in the Pioneer Valley? Not necessarily. Bobolinks can be seen all summer long wherever there is sufficient grassland for them to nest, but Fitzgerald Lake has no grassland to speak of, so it's no surprise that a Bobolink has only been reported once, and an Eastern Meadowlark never. Similarly, the absence of a Common Loon or any of the scoters at FLCA is explained by the fact that the lake is simply too shallow to attract these deep divers. And in some other cases, such as the Screech and Saw-whet owls, the birds are probably there, but because they're nocturnal they have escaped much notice.

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eBirding at Fitzgerald Lake, Part 2, continued

The same, no doubt, applies to the other birds that are rarely reported at FLCA. Among the 48 species that have been listed 10 or fewer times since eBird was launched, some—such as Snow Geese, Great Egrets, Fish Crows, and Rusty Blackbirds—simply don't visit that often.

But there are a number of others—such as Bald Eagles (reported 10 times), American Woodcock (7 times), Wild Turkey (6 times), and Savannah Sparrow (3 times)—that are almost certainly more common than their current numbers would indicate.

As more reports are entered on eBird from Fitzgerald Lake, I would expect some of these birds to start climbing the chart.

Finally, one thing that stands out when reviewing these eBird lists is the fact that even the most common birds, such as Great Blue Herons, Titmice, Song Sparrows, and Cardinals, are rarely

reported in numbers higher than a few individual birds at a time. But there are some definite winners in the abundance category, and I'll end on those, in ascending order: Mallards (with a high count of 38 on a single list), Wood Ducks (63), American Crows (80), Tree Swallows (200), Red-winged Blackbirds (300), and the grand champ, mentioned earlier... Canada Geese, weighing in at 836.



Great Blue Heron (Bob Zimmermann)

David Pritchard

Field Notes from Our Conservation Land: Summer Drought 2016

Workers at the boardwalk restoration and new bridge installation at Fitzgerald Lake Conservation Area found a stream a few inches deep, one that could be crossed in two giant steps, and a previously drenched boardwalk smothered with a superabundant growth of cattails. A historic hot summer with temperatures over 90 degrees began in late May and continued into September. Rainfall that usually averages about 3.5 inches a month here was reduced by 50%.

A severe drought was declared, and water use restriction policies were instituted in Northampton and surrounding communities. The whole ecosystem of our conservation land was affected with fish dying, plants wilting, and flowers, fruit and berries suppressed or drying up. But the drought arose in the context of a very warm, mild winter, with a total snowfall of only 11 inches – well below the average of about 50 inches. The generalized warming was a factor in the changes observed in the field this summer, as was the unusual hard freeze of April.

Blanche Darby, a local scholar of edible wild plants, noted a generalized loss of flowers and fruit. Birds were observed eating green Juniper berries because of the berries' late arrival after the late April frost, and the reduced quantity of berries because Junipers were stressed by drought.

Wild black cap raspberries, huckleberries and blackberries dried to brown foliage, produced less fruit, which then dried out on the vine. Peaches were suppressed severely by the frost. Apples fared better, but were still reduced in yield. Gardeners noted increased visits to their gardens by insects, hummingbirds, butterflies and bears, reflecting decreased pollen, nectar and fruit available to them in the wild.

Connie Parks, a botanist and frequent walk leader for BBC, found a good showing for early spring wild flowering plants (ephemerals) this spring. She thinks this reflects the good years of 2014 and 2015, with mild temperatures and ample rainfall. However, summer plants were generally delayed this year. For example, blue asters just started to bloom in late September and the fruit of silky dogwood was late to mature from green to blue.

"We won't completely understand the impact of the drought until we see how the winter unfolds."

Connie pointed out that drought tends to induce plants to make a phytohormone (plant hormone) that causes leaf drop. Summer drought can sometimes be interpreted by plants as winter dormancy, which is a dry period.

Some black birch trees dropped their leaves in August, then expanded their dormant buds until they showed a bit of green, as if ready to leaf out. "Plants are very sensitive to temperature, but at their core, they are all about water, getting water, moving it around the plant and protecting it from the deadly dry atmosphere," Connie explained.

As an exception to the dry conditions, Connie found a surprise when she led the mid-July plant walk in FLCA for BBC.

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Botanist Connie Parks, leading a walk at Fitzgerald Lake, said many summer flowers were late this year because of the dry weather. (Bob Zimmermann)

Aquatic plants like bladderwort were growing right in the middle of Boggy Meadow Road because of the earlier flooding caused by beavers downstream.

The drought was a boon to some aquatic plants at Fitzgerald Lake like the cattails and water lilies, which had a banner year thanks to the increased sunshine and shallow warm water. Cynthia Boettner, coordinator of the Invasive Plant Control Initiative for the US Fish and Wildlife regional office in Sunderland, observed a bumper crop of water chestnut, an aquatic invasive found around the Valley. Bruce Hart, who leads BBC's yearly efforts to remove these plants and collects data on them, was concerned about the extensive growth of water chestnut this year. Cynthia suspects that the warmer, shallow water caused by the drought may have allowed more water chestnut seeds at the bottoms of ponds to sprout (Water chestnut seeds can sprout for up to 12 years after they are produced.)

Cynthia saw young water chestnut all summer long and a lot of regrowth from stems that had snapped when they were pulled out by control teams.

Her optimistic view is that this bumper crop may more quickly exhaust the seed bank and ultimately help the efforts to control this invasive.

The local research helps put the drought in context with the other conditions of 2015-2016, including the warm winter with scant snowpack and continuing trend of increased temperatures. Joe Elkington, an entomologist and invasive

insect specialist at the University of Massachusetts, noted that gypsy moths largely disappeared from New England after the accidental introduction in 1989 of a fungus from Japan. However, lack of moisture this year prevented the growth of the resting spores of the fungus, which resulted in a surge of gypsy moths that decimated oak trees in eastern Massachusetts and Rhode Island and, to a lesser extent, damaged oak trees locally.

Deer ticks were also affected by this summer's weather. Public health officials are predicting a decrease in the deer tick population in this area, because the ticks struggle to survive when humidity drops below 85%. But officials caution that one dry summer is insufficient to decrease the cases of tick borne illness.

What does the future hold? According to a conference on ecological drought held at UMass in May, droughts in the Northeast have been more frequent and more severe since the 1960s. Climate change projections, according to the conference report, warn of shorter, warmer winters and drier summers, punctuated by intense rainfall. Overall warming, coupled with less frequent but more extreme rainfall or snowstorms, favor an increase in the intensity of droughts. That doesn't bode well for the natural world. The landscapes of the Northeast are dependent on abundant, relatively predictable seasons of rain and snow, and changes to those predictable weather patterns will put stress on plants and animals. Stressed trees, for example, are more vulnerable to insects and pathogens, invasive species and fire.

The Harvard Forest field station is studying the effect of increased temperatures on tree populations by tracking changes in leaf drop and leaf color in the fall and leaf budding in spring. Researchers have found that trees are losing their leaves five days later in the fall than they did 10 years ago.

The Harvard project includes a role for school groups and citizen scientists to document and submit data on changes in their own backyard maples, birches, oaks and beeches. We won't completely understand the impact of the drought on our conservation land until we see how the winter unfolds. I hope visitors to FLCA make their own observations of plants, trees and vernal pools this winter and spring and send them along to BBC for all of us to share.

Brigid Glackin

Overnight Shelter in Urgent Need of Volunteers

The Interfaith Cot Shelter on Center Street in downtown Northampton is short of volunteers for overnight duty. Colleen Currie, volunteer coordinator for the overnight staff, sent out a plea for help earlier this month.

The shelter, operated by ServiceNet, is open to homeless men and women from November through April. About 20 people a night take advantage of the shelter to come in from the cold. Each volunteer commits to spending one night a month there. The volunteer arrives at 9 pm, empties the dishwasher, sets out food for the morning, then sleeps in a private room. The next morning, the volunteer gets up at 5:30, oversees breakfast, then puts dishes in the dishwasher and leaves at 7. Both men and women are volunteers. A ServiceNet staff member is also on duty for the night.

"I've been doing it for 10 or more years and never have had a problem, and the homeless people really appreciate it – always thanking me for helping," said Jim Reis, who is BBC's liaison for affordable housing issues.

The cot shelter started about 20 years ago, rotating from church to church until it found a permanent home on Center Street.

Anyone who would like to volunteer may reach Ms. Currie at currie@crocker.com.

Margaret Russell

To receive occasional email alerts regarding BBC Walks and Talks, Volunteer Work Days and other news, go to the website and look for "email list" under the events tab at the top of the page.

Improvements Eyed for Beaver Brook/Broad Brook Conservation Area

Last year, several members of the Leeds Civic Association and the Broad Brook Coalition began a collaborative effort to rehabilitate and improve a 6-acre tract within the Beaver Brook/Broad Brook Conservation Area (aka Beaver Brook/Broad Brook Greenway) that lies between Haydenville Road and the Beaver Brook near the Williamsburg town line. The goal is to convert a disused and neglected tract of land that is both historically important and valuable habitat for wildlife into an area that can be enjoyed by the residents of Northampton and neighboring communities. Plans include construction of a wildlife viewing blind near the Beaver Brook, placement in the central area of picnic tables and interpretive signboards describing the cultural and natural history of the site, establishment of trails to provide access to interesting features of the site, and the control of invasive plants.

Earlier this year, we prepared a Notice of Intent (NOI) describing the proposed improvements, some of which will be located within a wetlands resource area. The NOI was subsequently approved by the Northampton Conservation Commission, the Natural Heritage and Endangered Species Program, and the Department of Environmental Protection. Efforts to obtain funding for this initiative are underway.

Bob Zimmermann



The cardinal flower, or lobelia, is an important nectar source for hummingbirds and snowtail butterflies. (Bob Zimmermann)

Beavers Outwitted! (Maybe?)



Boggy Meadow Road was flooded from late spring into summer, caused by a new beaver dam nearby. (Bob Zimmermann)

Throughout the spring and early summer, a section of Boggy Meadow Road was flooded, making it difficult to negotiate without sturdy waterproof boots.

As you might have guessed, it was beavers....again. Although a flow pipe had been installed in a large beaver dam to the west of the road in 2015, which temporarily mitigated the problem, beavers had constructed another dam just downstream that caused the water to overflow the first dam and flood the road. Our neighbors, the Wilbur family,



Boggy Meadow Road quickly dried up once a flow pipe was installed in the beaver dam. (Bob Zimmermann)

kindly allowed us to install a flow pipe through the second dam, which is on their property, in July. Within a couple of days, the waters had subsided and Boggy Meadow Road was once again passable.

Meanwhile, the underwater rock barrier installed at the Fitzgerald Lake dam outlet in 2015 seems to be holding its own. There have been no unexpected rises in the water level of the lake for over a year and we believe we've demonstrated that beavers cannot burrow through rock! Problems solved? Given the infinite resourcefulness of beavers, we'll see just have to wait and see, with fingers crossed.

Bob Zimmermann

Upcoming Walks & Talks

Bark: Experience the Trees at Fitzgerald Lake

**SUNDAY, NOVEMBER 20, 1 AM, MEET AT
NORTH FARMS ROAD ENTRANCE**

The leaf, twig and buds typically used to describe trees are often hard to see, or they are seasonally absent. Naturalist and teacher Michael Wojtech will explore the wonderful variety of bark textures, shapes, thicknesses and colors. Participants will learn how to identify tree species by their bark and why such variety of bark characteristics exist.

Michael is author of *Bark:*

A Field Guide to Trees of the Northeast.

Wildlife Tracking Presentation and Walk

**TENTATIVE DATE: JANUARY 5, 2017, 6:45 PM. AT THE
LILLY LIBRARY**

Have you ever been in the woods and wondered who's been there? Frank Grindrod, founder of Earthwork Programs and professor at Smith College, will explain how to see, read and interpret stories of the forest and its animals. The presentation will cover the art of tracking, identifying clear print tracks, sign tracking and foot morphology. A field walk will follow, with date to be announced.

Thanks to Jim Finn

BBC extends great thanks to Jim Finn, owner of JB Precision in Hatfield. When our donation box on North Farms Road was vandalized recently, and a part of the lock box taken along with money, I went to Jim's machine shop to ask if he could re-create the missing part. Told "Yes," I asked what it would cost us. Jim asked me what our group did, and when I explained we were a volunteer group caring for conservation land, he said it would cost us nothing. I was, frankly, touched. JB Precision in fact created three replicas of the missing piece, in case there's a future problem. Special thanks to Jim, and to his employee Jason Subocz, who did the job.

Dick Wynne

New Bridge and Boardwalk: A Construction Diary

After two years of planning, the bridge-boardwalk-dock project came together this summer. The new bridge-over-the-brook was completed in August, the boardwalk was raised and rehabilitated in September, and work is about to begin on a 100-foot extension of the boardwalk that will end in a new 10- by 20-foot dock. Here's how it unfolded.

July 7: The unassembled bridge, a precast fiber-reinforced polymer structure, arrives from Pennsylvania where it was made.

July 9-10: Plants, mud and other debris were removed from the ends of the sleepers supporting the boardwalk to prepare for the installation of a new support system.

July 15-16: The old bridge-over-the brook, which served us well for over 20 years, was demolished by a volunteer crew.

July 18: A five-person crew of volunteers from the Student Conservation Association Massachusetts AmeriCorps arrived, pitched their tents in the surrounding woods and got to work. They were with us for two weeks to help build the bridge and its approaches.

July 18-26: Diamond Piers, used to support the bridge and approach ramps, were installed. The 30-foot bridge frame then was assembled and put in place by a crew of BBC and SCA volunteers.

July 26-August 9: The approach ramps were constructed and, together with the bridge, were decked with rough-cut hemlock for secure footing.

August 11-23: Handrails were added to the approach ramps and covered with wire mesh to conform to safety standards established by the Americans With Disabilities Act.

August 24: Bridge finished and open!

August 8-11 and September 12-14: Most of the 400-foot long boardwalk was raised and leveled by Terramor LLC and Thayer Woodworking and Design, using a combination of winching and jacking. The original sleepers supporting the boardwalk were replaced by cross-beams attached to pairs of posts driven into the adjacent soil at 10-foot intervals.

September 15-26: Five-inch wooden curbing was installed along the entire length of the refurbished boardwalk.

November: We expect work to begin on the boardwalk extension and new dock in the very near future.

The bridge-boardwalk-dock project has been one of the biggest we've undertaken at the FLCA, certainly in the past several years. We are extremely grateful to Dick O'Brien of Conservation Works LLC, who supervised and contributed abundantly to the work, to the SCA/AmeriCorps crew whose enthusiasm never flagged, to over two dozen BBC volunteers who gave us over 550 hours of hard work, to Wayne Feiden for his steady financial management of the project, to members of the Northampton Conservation Commission for their interest and support, and to generous funding by the Recreational Trails Program of the Massachusetts DCR, Northampton's Community Preservation Act and the Broad Brook Coalition.

We wish safe passage to all!

Bob Zimmermann

New CPA Grant for Invasive Plant Control

BBC has been awarded a new \$12,800 grant by the Community Preservation Committee to manage and control invasive plants in Cooke's Pasture. Over the past several years, our efforts to curtail the growth of invasives such as glossy buckthorn and spotted knapweed have met with considerable success.

Nonetheless, small numbers of these plants persist and further treatment is required. Our contractor, Polatin Ecological Services (PES), has recently concluded that part of the problem lies in the presence of these plants in the forested buffer area surrounding the pasture, which produce seeds that spread back into the meadow.

Thus, future control efforts will focus on the 9-acre buffer as well as the 7-acre pasture itself, and will be directed toward glossy buckthorn, bittersweet, exotic honeysuckle, multiflora rose, spotted and brown knapweeds, and black swallowwort in the two zones.

The work will be carried out over three years by PES, which will make use of an ultra-low volume spraying system to apply herbicide to the target plants.

Bob Zimmermann



SCA and BBC volunteers



Cutting back vegetation



Demolishing the old bridge



SCA members unload material



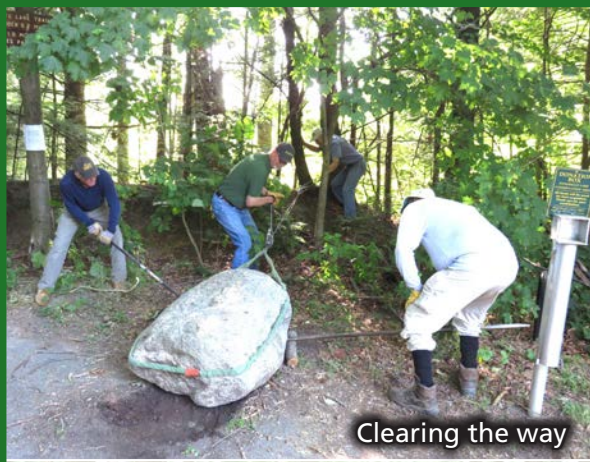
Stalwart BBC volunteers



Fixing new posts

Constructing the new bridge and rebuilding the boardwalk required hundreds of hours of manual labor by BBC volunteers, a Student Conservation Association crew, and Conservation Works staff. The work ranged from tearing down the old bridge, clearing vegetation, moving the long fiberglass bridge railings into place, nailing planks, and raising and leveling the boardwalk.

(Photographs by Bob Zimmermann)



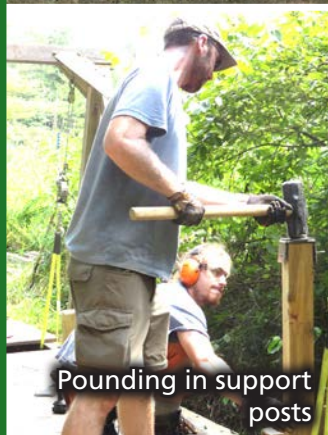
Clearing the way



Hauling out debris



Final touches



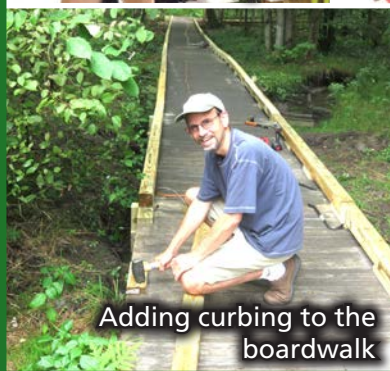
Pounding in support posts



Weighing the next step



Putting new bridge in place



Adding curbing to the boardwalk



New rails are ADA compliant



Building bridge approach

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☐ \$25 for Individual membership ☐ \$35 for Family membership. *All contributions are tax deductible.*

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☐ Please sign me up for a paperless newsletter (email address required).

☐ I prefer to receive a printed newsletter by mail.

☐ I've included an additional tax-deductible contribution to the Land Preservation/Stewardship Fund.

☐ Please do not include my name on any listing of contributors to BBC.

***Donate Online! Renew your membership or join BBC on our website (click on Join/Support)
Broad Brook Coalition needs your help, too!***

We appreciate membership dues, but want you know that you can contribute in other ways.

Members and friends are needed to help carry out our goals.

Please consider one or more of the following volunteer opportunities:

☐ Trail Committee (maintenance and repair) ☐ Stewardship Committee (includes invasive species removal)

☐ Land Preservation/Aquisition Committee ☐ Occasional Work Days ☐ Education Outreach

☐ Newsletter writer ☐ Other (please specify) _____