

## Nashoba Conservation Trust Winter 2022 News

---

### Conservation Corner

Ken Hartlage

We're thrilled to share with you that Paula Terrasi is a 2021 recipient of the Gulf of Maine Council Visionary Award for her exceptional accomplishments as Conservation Administrator for the Town of Pepperell, Massachusetts. Each year, the Council selects up to two recipients within each state and province bordering the Gulf of Maine to receive Visionary Awards, which recognize innovation, creativity, and commitment to protecting the marine environment. Here is the Council's award profile in full:

"Paula's personal dedication and ability to forge partnerships with state, federal and non-profit partners have helped to restore water quality and habitat for American eel, wild trout, and endangered mussels in the Nissitissit River and broader Merrimack Watershed. Under Paula's leadership and guidance, two dams were removed and multiple culverts were upgraded making this corner of the Merrimack Watershed healthier and more productive for both wildlife and people. Paula's leadership in environmental conservation at the local level has made a lasting positive impact on improving natural resources in the broader Gulf of Maine ecosystem."



Residents regularly cite Pepperell's protected open space as one of our community's greatest assets. For years, Paula has been a major force behind our naturally beautiful Pepperell, both in her role as Conservation Administrator and as Nashoba Conservation Trust Vice President. Congratulations, Paula, on this well deserved award!

## Keyes-Parker Has A New Plan to Deal With Invasive Plants

Rob Rand

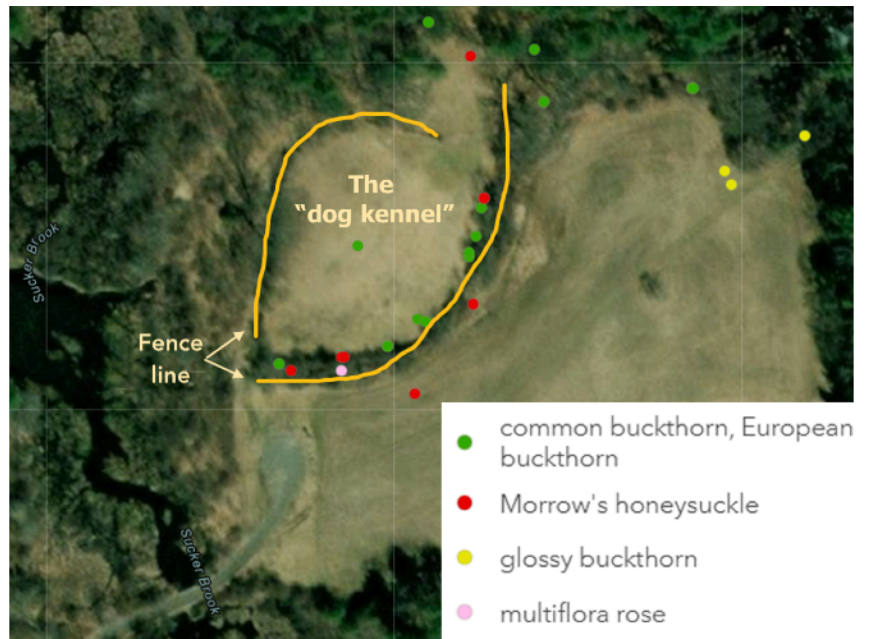
The Keyes-Parker Conservation Area is a Town of Pepperell owned open space parcel of about 70 acres managed and regulated by the Pepperell Conservation Commission (PCC). Over the years it has been maintained with open fields, succession areas (open areas left to grow naturally) and forests. Over time, invasive plants have become established throughout the parcel. Why worry about invasives? Invasive species can cause extinction of native animals and plants, reduce biodiversity, compete with native species for limited resources and alter habit.

PCC has always been aware of the threat of invasives, but only recently has an opportunity arisen to do something about it with the formation of the Invasive and Native Plant Advisory Committee (INPAC). INPAC is charged with evaluating invasive and native plants in Town-owned properties. INPAC hired Tom Mirabile to document the invasive plant species at Keyes-Parker and to develop a plan to remove them and restore the area with native plants.

INPAC presented their findings and recommendations to the PCC and a project was initiated under the leadership of Deb Fountain, INPAC Chair. The initial

focus area is a small hillside just past the gated trail entrance known locally as the “dog kennel” - the location where the former Hunt Club kenneled their dogs. Most of the invasive plants are found along a fence line that encircles much of the hill, and along an intermittent stream that connects to Sucker Brook. Invasive species in the dog kennel’s meadow also will need attention. The invasive species on the site include Common Buckthorn, Oriental Bittersweet, Multiflora Rose, Morrow's Honeysuckle, Japanese Barberry, and Autumn Olive.

The project is scheduled to begin this Spring, starting with the area adjacent to the stream. This is a priority area because seeds from these plants can travel downstream and establish themselves on the banks of Sucker Brook and the Nissitissit. The fence also will be taken down, facilitating invasive removal around the hillside. Mowing and hand pulling in the meadow will work for most meadow invasives and can be done as fence work continues. *Continued on next page...*



## **Keyes-Parker Has A New Plan to Deal With Invasive Plants. *continued***

Rob Rand

Native plants will be installed, and the site will be monitored to ensure their health and to prevent the return of invasive species. All the work will be done using hand tools and machinery - no chemical herbicides.

The benefit of this major project at Keyes-Parker is not only the value of fewer invasive plants competing with our native species, but also cleaner water in and flowing out of the wetland resources, and a healthier forest and meadow on the property. That makes for a healthier environment for all of us as well as a more sustainable climate.

To volunteer for joining in as the project proceeds in the spring and beyond you can contact Deb Fountain, [deborahffountain@gmail.com](mailto:deborahffountain@gmail.com).

## Annual Christmas Bird Count Results

Michael Veit

Every year around mid-December, the National Audubon Society holds its annual Christmas Bird Count. During this event, which takes place at locations all over the world, participants of all ages and experience identify and count as many birds as they can over a twenty-four-hour period. The annual bird count, which began in 1900, allows conservation biologists, wildlife agencies and other interested individuals to study the long-term health and status of bird populations across North America.

The Audubon Society divides the country up into “count circles” of approximately 23 square miles each within which volunteers identify and tabulate birds.

Pepperell falls within the Groton-Oxbow Count Circle, which includes most of Pepperell and all or parts of ten other nearby towns. This year, the Groton-Oxbow count occurred on Sunday, December 19th.

Participation in the Pepperell portion of the count circle was strong again this year, with 15 keen-eyed individuals scouring the fields, forests, and wetlands of their favorite local conservation lands and open spaces from dawn to dusk. Sixteen other nature-lovers carefully recorded the birds visiting their backyard feeders at intervals

throughout the day. Mild conditions leading up to

the count and on the count day itself undoubtedly factored into the record-breaking results. Overall, eighty-one species were recorded, 51 of which were seen in Pepperell. This was the highest species number in the 21-year history of our count circle’s participation. Additionally, five species not previously recorded were added to the circle’s list: Lesser Scaup, Red-breasted Merganser, Common Loon, Common Yellowthroat, and American Pipit. A total of 10, 916 birds were tallied, of which 2,111 were found in Pepperell alone. The top three species counted in Pepperell will no doubt be familiar to many of you, especially if you have bird-feeders: Dark-eyed Junco (248), American goldfinch (161) and the Black-capped Chickadee (94).



Black-capped Chickadee

Thanks to everyone whose efforts made this year’s Christmas Bird Count such a success!

We are looking for additional interested individuals and parties (both feeder watchers and field counters) to participate in Pepperell next year. The count is open to everyone no matter how experienced a birder

*Continued on next page...*

## Annual Christmas Bird Count Results *continued*

Michael Veit

they are or where they live (i.e. you don't need to live within the count circle). Newcomers are welcome, and many more experienced birders embrace the company of novice birders for part or all of the day. If you would like to participate next year, you can contact our town count compiler and NCT's vice president, Paula Terrasi, at: [lakelover207@yahoo.com](mailto:lakelover207@yahoo.com). The Groton-Oxbow count is held each year on the first Sunday of the count period.

General information about the National Audubon Society's Christmas Bird Count, including count period dates and results for each count circle, can be found [on their web site here](#).

American goldfinch



Dark-eyed Junco



## Walking the Blood Brook Ravine Fault Line

Bob Cataldo

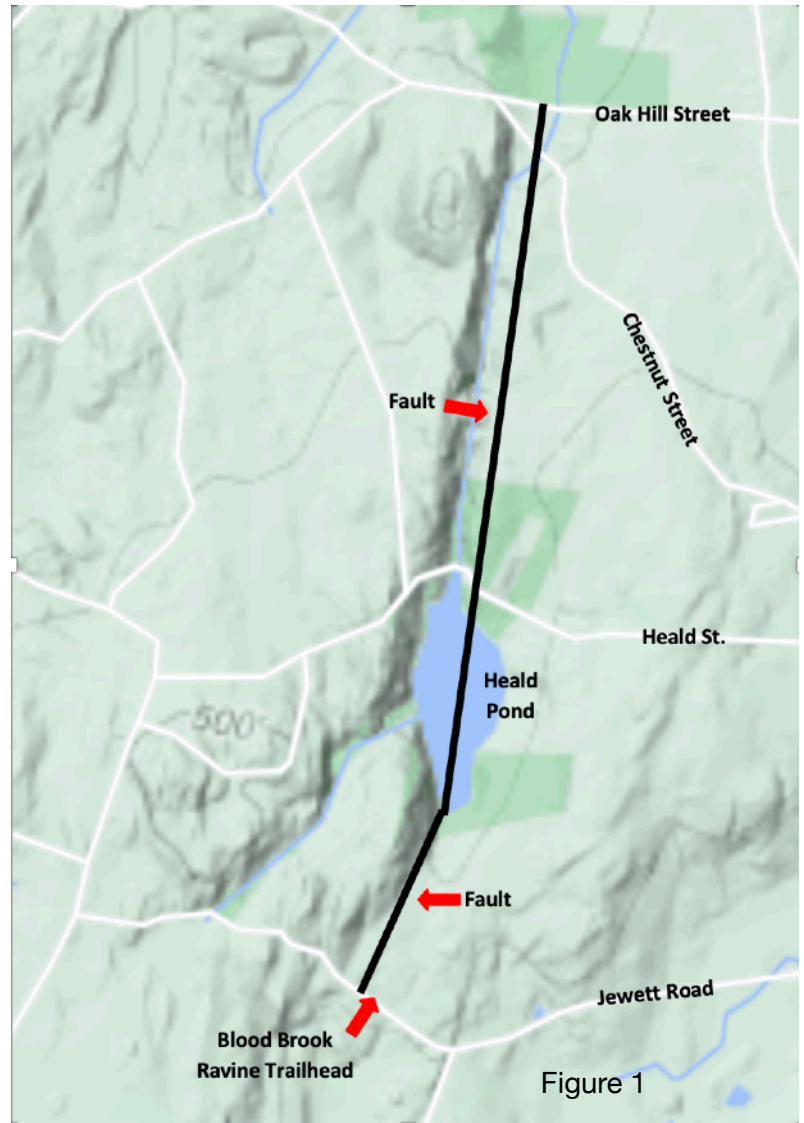
Pepperell has many wonderful walking trails that have amazing flora and fauna to appreciate while getting some exercise; however, there is more to see than just beautiful vegetation and scampering animals if you pick the right trails. The Blood Brook Ravine trail gives intrepid hikers a unique opportunity to check out some cool geology and meander through an actual fault.

The Blood Brook Ravine trail differs from most Pepperell trails in that it has steep cliffs rising above the valley floor. The cliffs signify a zone of inherent weakness in the rock caused by a fault, which was scoured and widened by ice about 10,000 years ago when the entire northeast was covered by a glacier. The fault is a minor off-set of the larger Wekepeke Fault system that trends from Connecticut into New Hampshire. Some of the valley features include:

- Cliffs on the western side of the valley rise almost vertical more than 100 feet
- An asymmetric valley profile resulting from less resistant rock on the eastern side of the valley
- A relatively straight valley alignment: especially north of Heald Pond (see Figure 1).

The fault running through the ravine is known as a thrust fault, which means that the older eastern rocks were “thrust” up and over the younger western rocks. Rocks on the eastern side of the fault line are part of the Oakdale

Formation, which consists of metamorphic schist and siltstone that date back more than 500 million years. Rocks on the western side are part of the Littleton Formation, which consists of metamorphic schist and phyllite that date back about 400 million years. Geologically there is a lot going on in this area and different interpretations do exist. *Continued on next page...*



## Walking the Blood Brook Ravine Fault Line *continued*

Bob Cataldo

Hiking north from the Jewett Street trailhead, one immediately encounters muddy and rocky terrain, which makes this one of the more challenging trails in Pepperell. About a quarter mile from the start of the trail, steep, rocky cliffs on the western side delineate one side of the fault. Looking east (right), the land gently rises due to greater erosion of the less resistant rocks. The trail meanders a bit until you get to Heald Pond where the valley picks up a distinct linear appearance that better defines the course of the fault.

One thing that you might not notice during your hike, unless you pay special attention, is the unique microclimate and habitats created within the valley. This trail section tends to be a few degrees cooler and more humid than the surrounding area; all of which allow for a diverse variety of vegetation to thrive.

This is a fun, but challenging trail to hike. Happy hiking, but be sure to bring waterproof boots, walking poles and some water.

### **NCT Board of Directors**

President: Ken Hartlage  
Vice President: Paula Terrasi  
Secretary: Cindy Kuhn  
Treasurer: Patty Franklin

### **Directors**

April Babbit  
Sue Bleiweiss  
Linn Clark  
Mark Camp  
Rob Rand  
Russ Schott  
Siri Stromsted  
Michael Veit

### Support NCT with your donations

The NCT offers the following levels of membership:

Individual - \$35

Family - \$50

Sponsor - \$100

Patron - \$250

Benefactor - \$1000

All memberships include subscription to the NCT Quarterly Newsletter. Visit the website at [nashobatrust.org](http://nashobatrust.org) to donate or mail your check to:

Nashoba Conservation Trust  
PO Box 188  
Pepperell, MA 01463