

Conservation Corner

Ken Hartlage

Amongst the many joyful changes that arrive each Spring, the leafing out of trees is one of my favorites. There is nothing quite like watching the landscape transition from a drab brown to a bright green to stimulate the senses and lift the spirits. But all that green serves another purpose with a direct benefit to our health – the removal of pollution from the air. Trees remove a large amount of Nitrogen dioxide, Sulphur Dioxide, Ozone and small particulate matter, which contribute to or exacerbate respiratory-related illnesses such as bronchitis and asthma.

A 2013 study published by the USDA Forest Service estimated that in 2010 trees and forests in the conterminous US removed about 17 million tons of pollutants. Although this amounted to less than one percent of total pollution, they estimate it helped avoid 650

thousand incidences of acute respiratory symptoms. That's a pretty good benefit and yet another reason we should work to protect our remaining undeveloped land.



Help NCT Replace Worn Bluebird/Tree Swallow Boxes

Michael Veit

With the advent of the novel corona virus and the recommended (or required) restrictions on public contact, many people are spending more time at home and thus have extra time on hand to engage in alternative activities. If you are one of those people, and are looking for a productive way to spend a bit of your time, we have the project for you!

Pepperell residents are blessed with a diversity of conservation areas to enjoy. Some are largely forested such as [Day Woods](#), [Pepperell Springs](#); others consist primarily of open, grass dominated habitat such as [Nissitissit Meadows](#), [Keyes-Parker](#); yet others such as [Mt. Lebanon](#) are a mix of both. If you have gone for a walk on one of these or another of our local grassy properties this spring you may have seen bluebirds and/or tree swallows flying about and entering the nest boxes that have been placed in some of these areas for the birds benefit. These wonderful bird species are fascinating to watch, beautiful, and can help control some pesky insect populations. They certainly add to the experience of visiting these properties! However, you may have also noticed that some of these nest boxes are old, in a state of disrepair, or conspicuously missing from properties where they would likely attract these birds.



We are looking for volunteers to build/donate bluebird/tree swallow nest boxes to replace those that have deteriorated beyond repair, and to add to both long established and recently acquired properties such as the [Marion Stoddart Conservation Area](#). If you supply them, we will install them where we see the most need and likelihood for success. There will also be opportunities for volunteers to help maintain and monitor them in the future.

There are many viable plans available on the internet for building bluebird/tree swallows nest boxes that require little skill, equipment, or materials. A few links to plans are included below, but if you have one you prefer, you are welcome to use it. There is no time restriction, but the sooner we can acquire and distribute them, the more likely it will be that are occupied this season. Please let us know if you are able to participate in this project and the number of boxes you are willing to supply by emailing us at contact@nashobatrust.org.

Thank you!

[How to build a bluebird nest box](#)

[Bluebird house plans](#)

[Eastern bluebird nest box construction plans](#)

[Bluebird house kit](#)

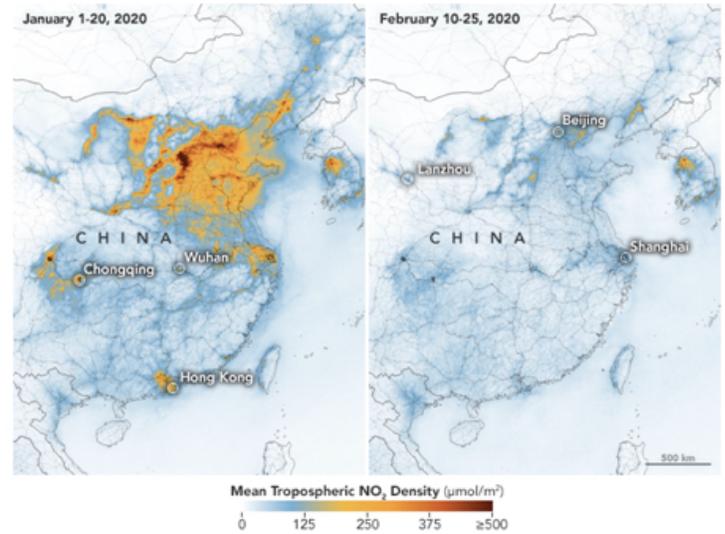
Positive thoughts amid COVID 19 chaos

Paul Peavey

It can be hard to find things to be positive about during these times of imposed coronavirus lockdown and disruption. Our lives have been changed in so many ways. It's easy to focus on the negative. But people and nature are resilient, and we will get through this. In the meantime, we are trying to take as many positive things as we can out of this dark and difficult period. And the environmental impact thus far has been just that.

With everyday life coming to an abrupt halt, our planet has been given a chance to breathe. In an effort to contain the spread of the pandemic, many factories have been closed. Planes sit on runways as travelers cancel flights and airlines slash service. Our driving habits have been severely curtailed. All of this has had a dramatic

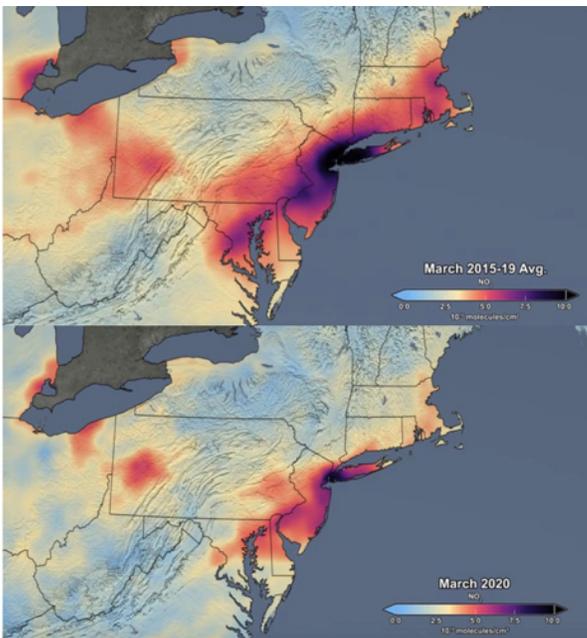
NASA's satellite images show that pollution over China dropped significantly since the virus started spreading a few months ago.



Levels of nitrogen dioxide are significantly lower over China than they were at the same time in 2019. Photo credit: Wikimedia Commons.

and positive impact. The images below show the big changes in airborne pollution on the heavily populated areas of the United States and in China. Will these changes be maintained when the danger passes? Only time will tell, but there are some obvious lessons to be learned here.

It has also been encouraging, in these sometimes-divisive times, to see people reacting more positively to one another as they openly appreciate many of the unsung heroes that are bravely helping to protect and care for us in these difficult times. Everyone in the medical community have risked their lives for those affected. Their families have also sacrificed greatly. Those working in the grocery stores and other essential businesses and services allow life to remain tolerable. I have a new appreciation for our state government officials. They are leading the way in the US by aggressively increasing testing capability, creating innovative contact tracing capability, and keeping the flow of information going to keep us aware of constant changes.



Along with all this, we feel extremely fortunate to live in this beautiful town of Pepperell with all its wonderful conservation spaces. It gives us a chance to escape the house and enjoy the outdoors. In driving around, it's impossible not to notice the increased activity in trail head parking areas almost anywhere you go. So, as this crisis develops, be patient, stay safe, and respect warnings of our data driven scientists.

The above images show a stark decrease in Tri-state air pollution since the coronavirus pandemic began. With many working from home and businesses closing, our air quality is the best it has been in years. Images courtesy of NASA.

Nesting Success?

Michael Veit

We reported in our winter newsletter about our construction of a kestrel nest box in Heald Orchard and hopes that a pair would adopt it to raise their young this spring. Well, we may have some good news! Beginning in mid-April we received reports of one or more male and female kestrels perching and hunting in the Orchard. A week later, on several consecutive days and continuing until the publication of this newsletter, a female was observed and photographed while intermittently perching on the nest box and flying about the Orchard (see images), while a male was also seen hunting regularly.

Could this mean that the pair have found a happy home? Only time will tell, but we will certainly be keeping our fingers crossed as we monitor the activity over the next few weeks. We ask that visitors and their dogs remain on the paths, especially in the savannah area where the nest box is located, and avoid approaching the birds in order not to disturb them.



(Kestrel photo by Joel Zaborowski)



Sustainable Pepperell

Ken Hartlage

In the Fall 2019 newsletter, I discussed sustainability and offered a few thoughts as to what that might mean in practice to Pepperell: A clean and plentiful drinking water supply; air that is safe to breathe; rivers and streams that are safe for swimming and fishing; an adequate and healthful food supply; housing for our diverse demographic; space for recreational and cultural activities and equitable access to all these resources – to name just a few. While we may believe these are basic rights, they won't just be handed to us. We need to work toward them, and that may mean making some basic adjustments to our own lifestyles and the choices we make.

In this post, I thought I would focus on one of those sustainability goals – an adequate and healthful food supply. As we are all experiencing first-hand during this pandemic, getting hold of even basic food items at the supermarket can be a challenge. That's because much of the food that makes it to those shelves is part of a highly concentrated industrial supply chain. And when one link breaks, the system falters. But we have an answer to that right here in Pepperell – our local farms that continue to operate and meet our needs. These businesses, locally owned and operated, are integral to the security of our food system. And unlike the large, anonymous factory farms from somewhere out west, you know where your food is coming from. You know our farmers by name. You know they care about the land they steward, the livestock they tend and the finished goods they produce for our enjoyment. The farms around us may be small, but they make an enormous contribution to our community's sustainability. Please give them your support.



The NCT website now features a section called Sustainable Pepperell, which includes information about our local farms, processors and distributors. We invite you to check it out by visiting the NCT Website at nashobatrust.org and selecting the Sustainable Pepperell link in the menu bar or [by clicking here](#).

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 to donate or mail your check to:

Nashoba Conservation Trust
PO Box 188
Pepperell, MA 01463

Upcoming Events

Due to the COVID-19 Pandemic, planned NCT events are on hold until further notice

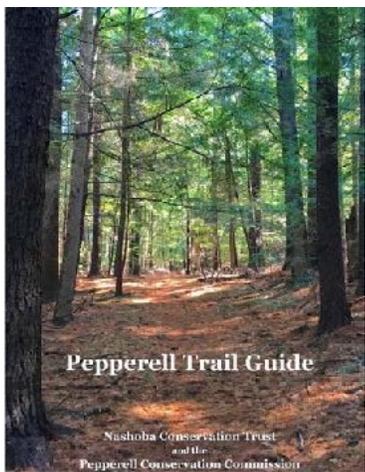
Volunteers

Volunteers are always needed and welcomed for all the activities that NCT participates in. If you would like to become involved, please contact Pat Peavey 508-320-2492.



Pepperell Trail Guide

The Pepperell Trail Guide describes sixteen conservation area and almost 20 miles of trails, some of which pass through or alongside some of Pepperell's most stunning natural areas, including the Nashua and Nissitissit Rivers, Heald Pond and Gulf Brook Ravine. Visit the NCT website at www.nashobatrust.org to download a copy.



NCT Gear

Our new website makes it easier than ever to order NCT tshirts and window decals. Visit the NCT website at nashobatrust.org and get an NCT tshirt or window decal delivered right to your mailbox!



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