

## What would Thoreau Do About Climate Change?

Some may have read Henry David Thoreau's book *Walden*, but most everyone has heard of it. *Walden* is Thoreau's written account of the two years he spent living alone in a cabin in what was then the wilderness of Walden Pond in Concord, Massachusetts. In this solitude, he had time to reflect on the natural world around him. Turns out he also took copious notes on what he saw – when wildflowers first bloomed in the spring, when trees began to leaf out, and when birds and butterflies returned.

Using these notes, and data from today, Dr. Richard Primack, a Professor of Biology at Boston University, has documented that climate change is happening - and it's happening not just in the polar arctic or equatorial rain forests, but right here in New England. For the past 17 years, he and his team have been using the records Thoreau and other 19<sup>th</sup> century naturalists kept to document the earlier flowering and leafing out times of plants, the earlier flight times of butterflies, and the more variable response of migratory birds. By way of example, his data shows we're having warmer springs which leads to wildflowers blooming around 10 days earlier than in Thoreau's time. Primack also found that many of the wildflower species Thoreau observed, including familiar cold loving plants such as irises and lilies, have declined in abundance or even disappeared from Concord.

Primack frequently gives talks and writes for the public on climate change and ecology and last month, the Swampscott Conservancy and the Unitarian Universalist Church of Greater Lynn hosted a presentation by him. The event was also promoted by Salem Sound Coastwatch, the Swampscott Public Library, and the Swampscott Conservation Commission. Close to 100 people attended the presentation.

If you missed the live Zoom presentation you can still view it at:

<https://youtu.be/19YSdrGnMXE>

You can also pick up a copy of Primack's book on the subject, *Walden Warming: Climate Change Comes to Thoreau's Woods*.

As Primack points out, in addition to the hard data he collected, there are other ways to connect Thoreau to the threat of Climate Change. Lessons can be drawn from Thoreau's philosophy and way of life.

First, like Thoreau we can *all* observe nature -- we can all become "citizen scientists." We can keep journals of our observations like he did, or download what we see on apps such as iNaturalist.org -or- [usanpn.org/natures\\_notebook](http://usanpn.org/natures_notebook). If you do, you'll start to see both

the gradual and the extreme effects of climate change that are happening today, right here in New England, right here in our neighborhood.

Second, we can, as Thoreau advises, “live simply and wisely.” We can use less fossil fuels, drive less, buy less, reduce our carbon footprint. By doing so, not only will we be helping the planet, we’ll actually become healthier and happier in the bargain.

Finally, as Thoreau did to address the societal injustices in his time, you can speak out and urge the government to take large-scale, ambitious action to address the threats of climate change. Given climate change’s negative effects on the natural world, and given that it is disproportionately affecting minorities and indigenous peoples, it’s easy to imagine what Thoreau would do -- he’d be an advocate for climate change action.

### Climate Change in Our Neighborhood

Primack research is focused on Concord, but what about closer to home? What if we were to look at the timing of seasonal biological events here in Swampscott? Collecting historic photos from significant dates, Colleen Hitchcock, a Professor of Biology at Brandeis University and Conservancy member, compared two photos of Veteran’s Day celebrations on Monument Avenue, one taken in 1931, the other in 2019. Primack’s research shows that climate change is not just affecting our Springs, but our Falls too. First frosts are occurring latter, so leaves are staying on the trees longer. If you look closely at these two photos, you’ll see that trees held onto their leaves longer in 2019 than they did in 1931.

(If you have historic photos taken on specific dates, please let us know, as the Conservancy is trying to collect more data on changes to seasonal biological events in Swampscott.)



November 11, 1931 Veteran’s Day Celebration on Swampscott Monument Ave



November 11, 2019 Veteran's Day Celebration on Swampscott Monument Ave  
Photo credit: Tasia Vasiliou