

Let it snow

*Whose woods these are I think I know.
His house is in the village though;
He will not see me stopping here
To watch his woods fill up with snow.*

These are the opening verses of Robert Frost's much-loved poem "Stopping by Woods on a Snowy Evening." This winter, not only the woods, but the yards and roads in our neighborhood have been filling up with snow, more so than in recent years.

Depending on your outlook – and probably age – snow can be either magical or an annoyance.

For the magical-minded, a covering of snow brings a hushed serenity and enchantment to the world, inviting people to stop, like Mr. Frost, and appreciate the stillness and beauty of a snowy wood.

Many also appreciate snow because it allows for outdoor opportunities not available in the summer months, like sledding, skiing, and snowshoeing – and for the young at heart, snowball throwing and snowman building.

However, for others, snow means shoveling and plowing, treacherous driving, and cancelled flights to warmer climates.

Snowflakes form when water vapor in the upper atmosphere freezes and becomes ice crystals that are heavy enough to fall to earth. Thanks to a 19th century Vermonter, Wilson "Snowflake" Bentley, we know what these ice crystals look like. According to the Smithsonian Science Education Center, Bentley used a microscope and camera system to capture high-quality images of the snowflakes at extremely high magnification, managing to photograph over 5,000 snowflakes during his lifetime. By photographing white snow crystals against black velvet before they melted, he was able to reveal the unique crystalline forms of each individual snowflake.

You've no doubt heard that no two snowflakes are alike, and it's generally agreed that this is true. But, with one estimate of about 1 septillion (that's a trillion trillion) ice crystals dropping from the sky every winter, it's one of those things that will be difficult to prove ... or disprove.

If you're looking for nature in our neighborhood this snowy winter, you need go no further than your backyard, where you may find a flock of Dark-eyed Juncos (also known as "snowbirds" because they appear with the arrival of winter) frolicking in the snow. Other wintertime birds that frequent backyard bird feeders include Tufted

Titmice, Black-capped Chickadees (Massachusetts' State Bird), Blue Jays, Downy Woodpeckers, and Northern Cardinals.

Snowy Owls (*Bubo scandiacus*), with their striking white plumage and piercing yellow eyes, are frequent visitors to the Nahant Causeway in the winter and, oddly, also Logan Airport. Migrating from the Arctic, they seek flat, open terrain, like the Tundra they're used to, which the airport offers. A short award-winning video, with stunning photography, documenting raptor specialist Norman Smith's efforts to capture and relocate Snowy Owls from the airport is worth viewing: www.annamillermultimedia.com/owls.

Criss-crossing the snow, you'll find not only bird, but animal tracks. Audubon provides information on these tracks, including a fun activity sheet for young adults to learn how to identify the common tracks they may find, as well as the story they may tell: massaudubon.org/places-to-explore/activities/family-fun/young-explorers-activity-sheets/stories-in-the-snow-activity-page.

Even if you are not a big fan of snow, it's hard to deny it's beauty. So, when snow comes to our neighborhood, take time to pause and appreciate something magical in nature - before heading out to the shed for the snow shovel.

A word on climate change.

Just because it's bitterly cold and there's more snow around this year doesn't mean climate change isn't real.

What the scientific data shows is clear. Average winter temperatures have been rising across the U.S. over the past decades, and many places are experiencing fewer cold days. That doesn't mean that the weather in any given location will vary from day to day, so you can still expect extreme cold at times like this winter.

Although it sounds contradictory, Yale Climate Connections (an initiative of the Yale Center for Environmental Communication) points out that the warming of the planet can even *cause* unusually cold and snowy weather. "Warmer temperatures can weaken the polar jet stream, a belt of high wind that circles the globe below the Arctic. A weaker jet stream can move erratically, pushing frigid air from the Arctic down to the continental U.S., causing extremely cold conditions. Warmer temperatures also evaporate more water into the atmosphere. And when it gets cold, all that atmospheric moisture can then fall to earth as snow."

While here in New England we will still get years with cold winters and snow like this year, they are becoming farther and farther apart. A recent study by Dr. Stephen Young, a professor at the Department of Geography and Sustainability at Salem State University, shows that New England is currently warming and losing snow cover faster

than global averages. His study points to how sea levels are rising, and severe droughts and floods are already starting to appear in numerous parts of New England due to this warming.

The Swampscott Conservancy and the Unitarian Universalist Church of Greater Lynn in Swampscott will be hosting a talk by Dr. Young on **March 16th at 6:30 pm** at the Church, located at 101 Forest Ave. in Swampscott. The talk is open to the public and free of charge. He will explain the climate changes that are occurring in New England, the science of why these changes are occurring, and what our future might look like. His presentation will be based on his recent (December 2025) publication in the journal Climate: “Decreasing snow cover and increasing temperatures are accelerating in New England, USA, with long-term implications” which was written with his son, Joshua Young. It can be found at: <https://www.mdpi.com/2225-1154/13/12/246>