

Climate change in the U.S. Northeast

By U.S. Environmental Protection Agency, adapted by Newsela staff on 04.10.17

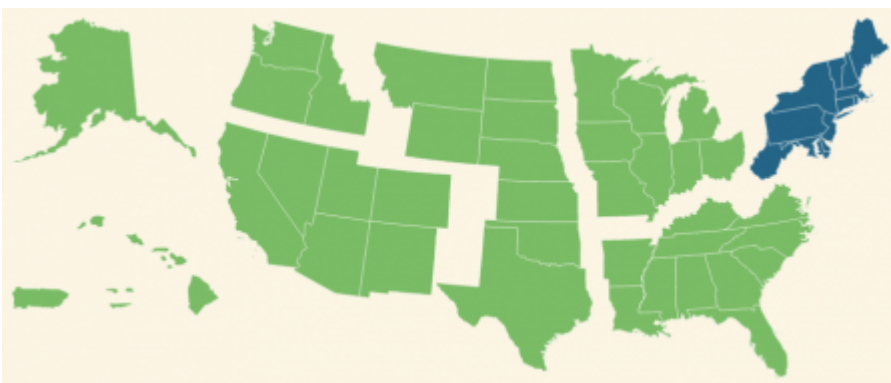
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Killington Ski Resort is located in Vermont. As temperatures increase as a result of climate change, the ski season in the northeastern U.S. will not last as long. Photo by: Jim Kelly/Flickr

Overview



The Northeast is home to many large cities. Other large rural areas serve as important ecosystems and farmlands. Climate varies widely across the region. It tends to be coldest in the north, in the mountains, and away from the coast.

The Northeastern climate is experiencing many changes. Between 1895 and 2011, temperatures rose by almost 2 degrees Fahrenheit. Over the next 50 years, more warming is expected. Heat waves are likely to increase and worsen. The total amount of rain and snow has also risen in the region.

Between 1958 and 2012, heavy rain and snow events increased by more 70 percent, more than in any other region in the United States. Continuing increases are expected. Even with more rain, warmer temperatures mean more water will evaporate. This could lead to drought in summer.

Air quality will get worse especially in cities. Young children, the elderly, and people with health conditions like asthma are especially impacted by worsening air quality. Those who live alone or in poorer communities are also at increased risk. People in cities may experience even warmer temperatures. Having a lot of people in one place make cities much warmer. Buildings and concrete also trap heat. This is called the urban heat island effect.

Increase In Flooding Expected

Sea level rise and heavy rain and snow are expected to increase flooding and coastal erosion. Aging roads and buildings could get damaged. Millions of people there live near coastlines and rivers. That puts them at greater risk.



In the Northeast, sea level has risen and caused more flooding of coastal areas. Further sea level rise and flooding are likely to cause a lot of damage. Damage from sea level rise could cost a lot of money. For example, in Boston, the increase in flooding could cost up to \$94 billion this century.

Negative Impact On Farming

Climate change is affecting farming in the Northeast. Heavy rain and snow can damage crops. Wetter springs can delay planting. That results in later harvest and fewer usable crops. Summers are longer and drier. Warmer springs may be followed by cold snaps, causing frost

damage. Large parts of the region may become unsuitable for growing fruits, like apples and blueberries, and other crops, like grain and soybeans. Warmer conditions harm animals like cows. They produce less milk and have fewer calves.

In the Northeast, fishing provides both food and income for fishers. Fisheries are likely to be harmed by climate change. Many fish will move north in search of cooler water. There won't be as many in the region.

Plants And Animals Affected

The Northeast is home to many plants and animals affected by climate change. The area where temperatures and climate conditions are just right for certain plants and animals is known as a species' range. Ranges of certain trees are moving north and into the mountains, where temperatures are cooler.

Growing deer populations have been eating too many plants. Invasive plants like kudzu have been expanding their range and hurting some ecosystems.



Changes in the temperature can also change the timing of important events. Birds migrate sooner. Plants bloom and get their leaves earlier. Climate change and sea level rise are expected to harm coastal ecosystems.

Shorter Winter Snow Season

Winter activities generate about \$7.6 billion for the Northeast annually. These activities include skiing, snowmobiling and ice skating. Winter snow seasons could get shorter, limiting these activities.

For ski mountains to stay open, the average length of the ski season should be at least 100 days. Otherwise, the resorts lose money. Nights must also be cold enough to make snow. Some ski mountains in the region will close. By the end of the century, most ski mountains will be at risk. It will be too warm. Those that stay open will have to make more of their own snow. That requires more water and energy. It also increases costs.