

Climate Change and the Trail

BY LEONARD BERNSTEIN

PHOTO BY MICHAEL PHENNEGER

Bicknell's thrush may not be as iconic as a polar bear, but it's just as much at risk from climate change. The summer home of this endangered song bird is the high mountains of New England and 25% of its breeding range lies within a mile of the A.T. If climate changes in the ways that scientists predict, it's possible that in the next 50 years, Bicknell's thrush may have no place in the U.S. left to breed.

While the disappearance of one song bird may not change the A.T. experience for most hikers, other impacts of climate change will. When you say climate change most people only think about it getting warmer, but rising temperatures will cause many other changes. On average, rising temperatures will mean more rain and snowfall, but precipitation will not increase in all areas and there may be shifts during the year it occurs. Precipitation will also become more intense and there will be more storms. Some areas will experience drought, as the Southeast has for the past two years. In the fall of 2007, the drought dried up all the water sources on the Carolina Mountain Club's section of the A.T. For nearly two months the club had to advise backpackers against hiking the 90 miles of the A.T. north of the Smokies. While it is not possible to attribute this drought to climate change, many climate models predict that the Southeast will become drier and drought may be the normal condition in the future.

Drought will make the Trail more susceptible to erosion. Climate change is expected to bring more severe storms causing

more blow downs. Longer term, warmer temperatures will drive shifts in vegetation patterns, with plant ranges moving both north along the Trail and to higher elevations. Spruce-fir forests at the highest elevations in the Southern Appalachians migrated there from lower elevations (where they lived under colder conditions) and could disappear completely from the peaks under future, warmer conditions. The A.T. would remain, but the experience of hiking it would be very different.

The consensus among scientists is that human activities have been the major cause of the climate change of the last 50 years and that unless steps are taken to control greenhouse gas emissions, global average temperatures could rise by 2–11°F by 2100. Temperatures over land would rise even more.

Recognizing that the Appalachian Trail Conservancy (ATC) had an obligation, as do all individuals and organizations, to help control greenhouse gas emissions, the Board of Directors, at its November 2008 meeting, adopted a climate change resolution that commits ATC to:

reduce its own carbon emissions

by implementing cost-effective energy technology and behavior changes in its own operations

educate ATC members and Trail visitors

on climate and its wide-ranging effects on the A.T., and on the availability of mass-transit and other low carbon transportation alternatives for travel to trailheads

monitor climate change indicators

and collect climate-relevant data through the A.T. MEGA-Transect project and other environmental monitoring programs

recognize the value of A.T. forest lands

for carbon sequestration, climate modification, and as a corridor to allow wildlife to adapt to climate change

support policies of energy conservation

and renewable energy technology where consistent with ATC's other policies

and work with like-minded organizations

to promote carbon-reducing efforts and climate change education programs

We need your help

Do you know of scientific studies of the impacts of climate change on the Appalachian Mountain areas that the A.T. passes through? Would you be willing to collect information about mass-transit to or near A.T. trailheads? If so, please e-mail Lenny Bernstein at Lsberns@att.net.

This is a broad-ranging commitment and not all of it can be implemented at once. However, as a first step, ATC will be looking for ways to develop a Web page that will include information on climate change and its potential impact on the A.T., as well as more information about mass-transit options for reaching A.T. trailheads.

Driving personal vehicles to reach the A.T. for Trail work is the largest single source of greenhouse gas emissions from ATC operations. While much of that driving is unavoidable, the Energy and Climate Change Subcommittee will continue promoting carpooling wherever possible, and will examine whether there are ways to schedule maintenance activities to reduce the number of miles driven. Subcommittee members will also be working with staff to examine other aspects of ATC operation to see whether we can reduce greenhouse gas emissions cost-effectively and without reducing ATC's effectiveness. This is a new objective and it will take some time to work out all the details, but we're all committed to making ATC a low-greenhouse gas emission organization.

Lenny Bernstein served as an author to the United Nations Intergovernmental Panel on Climate Change; for this work, he shared the 2007 Nobel Peace Prize with his co-authors and Al Gore; he currently serves on the ATC Stewardship Council's Energy and Climate Change Subcommittee.

For a list of current public transportation options visit:

www.appalachiantrail.org/transportation