



EXPLORING THE APPALACHIAN TRAIL AS AN ENVIRONMENTAL MEGA-TRANSECT



In 2000, a small group of scientists, policy makers, and land managers came up with a bold new idea to use the Appalachian Trail as a scientific mega-transect for monitoring the environmental health of the eastern United States. The rationale was simple, but compelling. The Trail traverses the high elevation ridges of the Eastern United States, extending 2,175 miles across 14 states. The Trail's corridor encompasses 250,000 acres and intersects with 8 national forests, 5 units of the National Park System, and 287 jurisdictions. The iconic status of the Trail presents a powerful communication tool that scientists and educators can use to reach millions of Americans. In addition, the Trail's cooperative management system, with more than 100 government and non-profit partners, is tailor-made to facilitate a large-scale collaborative monitoring program.

In 2006 that idea became a reality when 70 participants came together at the National Conservation Training Center in West Virginia. The participants represented non-profit organizations, public agencies, and universities and have worked together to generate significant enthusiasm and broad excitement for the A.T.MEGA-Transect concept.

Goals of the Appalachian Trail Environmental Mega-Transect

- Monitor – Collect and synthesize existing and new data on key indicators of environmental health from agencies, organizations, researchers, and citizen scientists;
- Understand – Transform status and trend data into knowledge through analysis, synthesis, and modeling;
- Inform – Provide early warning of undesirable conditions or trends, such as climate change, as a means of better protecting the resources and reducing costs of management; and,
- Engage – Share knowledge by engaging, educating, and involving decision makers, stakeholder organizations, and citizens.

Anticipated Uses of Monitoring Results

- *Adaptive Management and Science* – Provide sound scientific baseline and trend information about environmental conditions on the Appalachian Trail to help inform practice and science;
- *Public Policy and Action* – Utilize large-scale data sets to inform the public and influence decisions; and,
- *Public Engagement and Education* – Involve citizens and use the Appalachian Trail's iconic status to convey key findings to the American public.

Long-term Objectives

- Establish the Trail as the continent's first environmental monitoring "Mega-Transect"
- Advance the state of scientific knowledge of issues affecting Human Health and the Environment
- Communicate results through scientific and popularly accessible publications
- Encourage participation by researchers, agencies and citizen scientists.