**Appalachian Trail Visitor Impact Assessments to Enhance Sustainability and Improve Visitor Experiences**

A 4-year Virginia Tech research study funded by the National Park Service Recreation Fee Project (requested by the A.T. Park Office) with administrative support of the Appalachian Trail Conservancy.

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# Abstract: This research will sample approximately 10% of the Appalachian Trail in 5k segments, within which conditions of the A.T. tread, recreation sites (shelters, campsites, day-use sites), and informal trails will be assessed. The 1st year of research (2015) conducted field assessments from the NY/CT border to Katahdin and the fieldwork was recently completed. The middle third of the trail will be assessed in 2016 and the southern third in 2017 (report and paper writing to continue into 2018). A.T. trail and recreation/camp site conditions for each area will be described and summarized for comparison to other portions of the A.T. Statistical modeling and testing will be conducted to identify and evaluate the relative influence of environmental, design/maintenance, and topographic factors that can be manipulated to increase trail and recreation site sustainability and improve Leave No Trace educational practices. We will be developing some Best Management Practices for trail design/relocations, annual trail and recreation/camp site maintenance, and LNT education. This information will be communicated by study reports, journal papers, and club presentations and workshops. APPA and ATC staff will utilize study findings in revising the A.T. Comprehensive Plan, addressing carrying capacity and visitor use management issues, and in managing group, commercial, and special event uses that require such data to address resource protection decisions.

**Club Staff Participation:** We invite and need the assistance of A.T. club volunteers. We may need logistical advice or assistance to efficiently access some of our study segments, and if club members want to accompany us on the trail you can observe and assist with data collection. We will definitely need information about the history of the A.T. tread within each 5k segment (e.g., age of different subsections, description of past major maintenance projects/relocations, characterizing the type and amount of annual tread maintenance, and in estimating the amount of use by season.