

**Potential Inventory and Monitoring Plots
On the Appalachian National Scenic Trail
Maine to Pennsylvania**

The following are a listing of potential areas of focus for natural resource inventory and monitoring on the Appalachian National Scenic Trail from Pennsylvania to Maine. As part of the National Park Service Inventory and Monitoring program, park units have been divided into networks for the purposes of natural resource inventories and long term monitoring. The Appalachian National Scenic Trail spans five of the NPS networks. In the Northeast Temperate Network the A.T. encompasses well over 200,000 acres in 8 states if one includes all A.T. lands regardless of ownership. In order to facilitate the A.T.'s role in the NETN, Trail managers have proposed selecting 10 sample areas to do more intensive inventory and monitoring projects.

The following list represents a list of possible sample areas or plots where additional natural resource inventory and monitoring work may prove beneficial to Trail managers. Sites were selected based on the following criteria:

- The presence of known rare, threatened or endangered species
- The likelihood of observing land use change in the next 25 years
- The likelihood of experiencing heavy recreational use that may compromise natural resource conditions.
- The presence of a data set that may assist managers to track trends over time (for example existing air quality data).
- The presence or absence of exotic or invasive species
- The possibility of significant land conservation in areas adjacent to the study area.
- The gut feeling of Trail managers.

North to South:

Whitecap Mountain (NPS ATPO)— This remote alpine summit is in a region where significant land conservation is likely to occur adjacent to the Trail corridor. Views are expansive and vegetation is krumholz with some alpine species. Whitecap is in the midst of land that has been historically logged but conservation interest in the area is high. This interest may lead to land use changes (cessation of logging adjacent to the corridor) in the near future. There is also a summit station that contains solar panels and antennae for radio repeaters. The presence of these facilities may make Whitecap more appropriate for a study area that required installing equipment in a remote setting such as an air quality monitoring station.

Horns Pond to Avery Peak (Bigelow Preserve, Maine) – A high use recreation area with alpine vegetation on the summits. Horns Pond is a remote water body that has a variety of influences on it including a very popular campsite nearby, recreational swimming, a water source for hikers, and fish stocking by the State of Maine. In the late 1990s the Maine A.T. Club and the Maine BPL completed a 10-year project to move the campsite out of the watershed of Horns Pond and to install composting toilets. The

Bigelow summit area contains arctic-alpine community that has 10 state-listed rare, threatened or endangered plants as well as 4 birds and 1 mammal.

Saddleback Mountain Maine (NPS ATPO)—This area is known for its arctic-alpine vegetation community on the smooth bedrock dome of the peak. Ranked as one of the most important places on the A.T. for species rarity, Saddleback is also the subject of considerable interest from the A.T. community due to the proximity of a ski area. The potential for future ski area expansion at Saddleback points to the desirability of additional information about vegetation, water courses and other resources. Alternately, should the ski area cease to operate there is interest in a conservation project to further protect important habitats and to provide further buffers between the A.T. and development. There are also ATV issues and camping issues at Eddy Pond at the foot of the mountain where additional resource information could inform appropriate recreation management for the site.

Old Speck to Fulling Mill Mountain (Maine BPL)— Located in the rugged Mahoosuc Mountains near the Maine/New Hampshire border this section of trail sees moderate to heavy use. This 5.7-mile section of Trail includes five separate natural heritage sites (Old Speck Mountain, Mahoosuc Arm, Mahoosuc Mountain, Mahoosuc Notch, Fulling Mill Mtn.). There is a popular shelter and campsite on Speck Pond, the highest pond in Maine. Mahoosuc Notch is a mile long steep walled cleft filled with house-sized boulders and unusual vegetation. The Notch itself maintains its own microclimate — usually about 15 degrees cooler than anywhere else. Also the inaccessibility of the Notch has meant that the trees there are considered old-growth. Monitoring the impacts of recreational use on the vegetation in the Notch would be important because hikers must scramble over, under and around the boulders and this may be negatively impacting rare species.

Hanover NH (White Mountain National Forest)— The town of Hanover has about 13 miles of the Trail within its borders. The town is facing more and more development as the region's economy grows. The effects of this development on the A.T. are unclear at this point. As farms get turned into housing lots or fields revert to woods, wildlife will likely be affected as will vistas for hikers. In one case in Hanover, a major subdivision is going in immediately adjacent to Velvet Rocks, a significant geologic feature on the Trail. The developer even had the gall to name the neighborhood of \$800,000 houses "The Village at Velvet Rocks." This development is probably not the last large development to go in next to the Trail in Hanover. Other resource issues are loss of natural quiet and light pollution in the night sky. The Town of Hanover has already highlighted the value of the A.T. corridor in their open space plan and made the conservation of additional adjoining parcels the town's highest priority. Alternate locations where land use change will likely affect Trail values would be Great Barrington, MA; Cheshire, MA; Salisbury, CT; Pomfret, VT; or Shresbury, VT as well as many parts of the Trail in the PA, NJ and NY.

Chateaugay – No-town Area (Vermont Fish and Wildlife and NPS ATPO) — This section of Trail, located in the towns of Barnard, Bridgewater, Killington and

Stockbridge, VT, is in the midst of a large undeveloped area between two popular resort communities (Killington and Woodstock). The Trail is quite primitive and isolated despite its proximity to areas where second home development is rampant and the historical farming and timber economy is starting to change in favor of development. There is great community interest in preserving the Chateaugay-No-town area in its current undeveloped state. The four towns that are included in the CNT area have developed a working group that includes the regional planning commission, local land trusts and the ATC. The purpose of the working group is to seek additional land protection for the area on a willing seller basis. Additional information about wildlife habitat, important watercourses, or the presence of rare species would aid conservation efforts. Also, if the area does experience development as a result of the proximity to growing population centers some monitoring data would help us understand the effects of the change in land use.

Glastenbury Mountain (Proposed Wilderness) (Green Mountain National Forest)—Glastenbury is the most remote section of the AT/LT in Vermont and is in the middle of a 40,000 acre area that has been proposed by a coalition of conservation organizations for Wilderness designation. A pilot project here might have the interesting benefit of beginning study at the same time as a Wilderness designation (assuming the political stars align). One interesting issue to look at might be the closure and restoration of roads and snowmobile trails and its effect on habitats, soils, and water quality. Certainly tracking changes in forest type would be interesting in those areas that had been historically logged. Another area of study might be water quality in headwaters stream areas. As the Trail runs along the Glastenbury ridgeline it follows the divide between the Connecticut River Watershed and the Hudson River watershed.

Tyringham Valley, Massachusetts (NPS ATPO) – The section of Trail through Tyringham is home to four separate Natural Heritage sites. The first site is associated with Hop Brook, a meandering floodplain stream. This A.T. uses an extensive bridge and boardwalk to cross Hop Brook. The floodplain also includes agricultural special use permits that allow grazing of horses, cultivation of crops and cutting of hay inside the NPS corridor – some of which may be negatively impacting rare species which grow in the fields. There are also rare aquatic species in the stream. The Natural Heritage Inventory identifies two mussels and a turtle present at the site and suggests additional research to search for more. The area around the stream is also going through forest succession with more and more woody material growing in the non-cultivated areas which threatens species diversity. There is also a population of purple loosestrife at the site that should be managed. Two of the other Natural Heritage sites are associated with a major gas pipeline that crosses the valley and has irregular mowing and vegetation management. It is also likely that this pipeline will be used for future utility corridors, possibly disturbing the rare species. There are also important cultural resources on and adjacent to the corridor. Tyringham was home to a large community of Shakers with some of their homes and barns still standing just outside the corridor and some barn foundations inside the corridor. Tyringham is also potentially susceptible to development pressure and land use change in that it is only a few miles from the Massachusetts Turnpike and the popular resort towns of Lee and Stockbridge.

Bulls Bridge, CT (NPS ATPO)– Bulls Bridge is where the Housatonic River and the Ten Mile River come together in Kent, Connecticut. It is an area that has several documented rare, threatened and endangered species. The riverfront area creates an attractive destination and is the focal point for a variety of recreational uses in addition to the Appalachian Trail. These include kayaking and canoeing, picknicking, bird watching, fishing, and sightseeing. In addition to an A.T. shelter and camping area, there are several parking areas, a covered bridge, a canal, a viewing platform above a gorge and a hydroelectric dam. The Trail follows along the shoreline of the Housatonic for a long distance and the river is an important part of the recreation experience and the ecology of the site. The Trail currently is closest to the shoreline in the bypassed reach of the river (meaning the water used to generate power is being diverted down a canal and eventually to a powerhouse a mile downstream). The dam's FERC license is currently being renewed and recreation management at this site is one of the issues that FERC is studying. In 2003, CT DEP, NPS, Northeast Utilities and ATC are planning a joint project to do additional ecological inventory work and to also write a recreation management plan for the property. Additional inventories may help inform the FERC process and can tie off of the 2003 ecological inventory and management planning process.

The following are considered based on known use patterns and pressures. Many are high use/multiple use areas. Very popular for camping, fishing, boating, and/or snowmobiling. Potential impacts on water quality, wildlife and habitats, and sensitive flora (if present) are suspected high, especially with increased use.

Stratton Pond, VT
Zealiff Pond, NH
Bald Mountain Pond, ME
Ethan Pond, NH
Eliza Brook Shelter, NH

Sheffield, MA

The trail enjoys the benefit of many open areas and agricultural fields in Sheffield. Market pressures on agriculture and pressure from development are considered substantial in the area.

New York

Harriman State Park/ Bear Mountain (Pallisades Interstate Park Commission - PIPC)– The very first section of A.T. was constructed across Bear Mountain, just south of where the Trail spans the Hudson River. The mile immediately south of Bear Mountain Inn is arguably the most visited mile of the entire A.T. Several state-sensitive (S3) plant populations and communities are present. However, the Trail experience is seriously degraded by erosion of thin soils and steep grades, a condition that is exacerbated by excessive traffic and a voracious white tail deer population that has eliminated understory vegetation. Trail partners have initiated discussions about a major restoration/relocation effort which quite possibly could entail a decade of cooperative endeavors by the management partners. Beyond recreational impact and soil loss, Bear

Mountain also presents an opportunity to monitor air quality (60 miles from New York City) and water quality in the Hudson River.

Bellvale Mountain (NPS-ATPO, New York-Department of Conservation) – Bellvale Mountain hosts several scenic rock outcroppings (e.g. Cat Rocks, Eastern Pinnacles) which afford spectacular views. Until September 11, 2001, these included the World Trade Center Twin Towers in the distant skyline. There are several ridgeline wetland areas present. Rare plant species include river birch, Atlantic white cedar, violet bush clover and dittany. Timber rattlesnakes also den in the area. DEC maintains a hawk watch platform for viewing fall hawk migrations.

New Jersey

As might be expected, each of these northern New Jersey sites are vulnerable to the detrimental affects of urban sprawl. Perhaps surprisingly however, they have each maintained a certain degree of remoteness, which may simply be an illusion, albeit one we want to sustain.

Pochuck Valley (NPS-ATPO and NJ Department of Environmental Protection DEP) Heading in a southerly direction, the Trail descends Waywayanda Mountain where several rock ledge outcroppings afford scenic views across the rural and wetland valley floor. The Trail traverses the Pochuck quagmire on a mile long elevated boardwalk. The site is home to several rare plant communities and a federal register nominated cultural resource site (the Ring Quarry). It is a haven for numerous bird species. Large mammals, including white tail deer and black bear are commonly seen. A great deal of natural and historic resource information was gathered during the NEPA compliance work needed for the boardwalk project, completed in 2002. The wetland is the remains of a glacial lake that has, over time, eutrified. There are small, but growing populations of invasive species present, including purple loosestrife and phragmites. Vernon Valley promotes tourism (Mountain Creek ski area is nearby, and year round activities there draw crowds and second home development.) Land use planning efforts need to be monitored and positively influenced.

Banks Pond (NPS ATPO and NJ DEP) Three ponds are located on this 286 acre tract, the result of low head dams scheduled to be breached in the summer 2003. Both NPS and state policy require all manmade dams be maintained or drained. A decision to restore the area to its natural wetland condition is currently under consideration pending outcome of an environmental assessment for breaching the dams. The dirt access road is severely degraded and maintaining the deteriorated dams is not economically prudent. A coalition of private land trusts is working on securing a large contiguous tract on the New York side of the border. Monitoring this restoration effort from open water ponds to wetland environs should prove to be interesting.

Walkill Valley (NPS ATPO, NJ DEP and Walkill National Wildlife Refuge) Much of the Walkill Valley has been protected by the public land acquisition efforts of DOI's NPS and USFWS and the State of New Jersey. The Refuge is currently acquiring lands to protect wetland and grassland bird habitat along the Walkill River, including the

remnants of what previously was a large sod farm, commonly referred to as "the black dirt area". Significant resource data may be available from refuge staff. The A.T. currently crosses the Walkill River on a county road bridge (Oil City Rd), but discussions are underway to construct a pedestrian only bridge across the 120 foot river span in the next five to ten years. Numerous wetland, song and raptor bird species are present, as well a variety of reptiles and amphibians. There is a G4 floodplain forest community and many vernal ponds present.

Dunnfield Creek – Sunfish Pond NPS – Delaware Water Gap National Recreation Area and ATPO, NJ DEP (Worthington State Forest) Dunnfield Creek is located on the New Jersey side of the Delaware Water Gap. It is a scenic steep-sided ravine which is accessed via a trail head parking area immediately adjacent to Interstate 80 (I-80) in the Gap. This is an extremely popular destination, between the Poconos and Manhattan. Historically, the steep banks of Dunnfield Creek have been protected by the presence of large Hemlock trees which now are severely infested by the hemlock wooly adelgid. Although biological controls (ladybird beetles- *pseudoscymnus tsugae*) were released to mitigate the damage caused by the adelgid, the effectiveness of the beetles appears to be marginal. This area offers an opportunity to observe the devastating affect of the adelgid, measure soil loss, and assess the affects on the clear and cold creek, with the loss of the dense hemlock canopy in the ravine.

Pennsylvania

Kittatiny Ridge - Pennsylvania Game Commission SGL #'s 168, 217, 106,110, 80, 211, and 170 PA Bureau of Forestry (Wieser and Delaware Districts), Hawk Mountain Sanctuary, NPS-ATPO) The Kittatiny Ridge runs some 200 miles from New Jersey almost to the Maryland State Line. It is a globally significant migration flyway for thousands of raptors and millions of songbirds and is the focus of attention of the Kittatiny Coalition, a consortium of interested environmental and conservation public agencies and private organizations. The ridge offers recreational opportunities, scenic landscapes, serves as a critical wildlife habitat link in the Appalachian forest, and provides the headwaters for many of the important public water systems and fish habitat. There are approximately ten known sites where individual species and plant communities along the A.T. on the Kittatiny ridge can be found.

Rausch Gap/ St. Anthony's wilderness -Pennsylvania Game Commission SGL #211, PA Bureau of State Parks- Swatara State Park, NPS ATPO This area is the largest undeveloped roadless section of Trail in the mid-Atlantic region. Although not federally designated wilderness, it is a significant block of unbroken public land in central Pennsylvania with a rich history. There are faint remnants of the long gone village of Yellow Springs including building foundations, mine infrastructure, and a handful of headstones in a deserted family cemetery. There are several rare plant communities identified in the A.T. Natural Heritage Site Inventory for PA and the only mammal specie (Allegheny woodrat) identified. There is an old railbed that traverses the center of this area, which the PA Game Commission maintains for administrative access into their lands. Clarks Creek and Stony Creek, both popular trout streams are located here.

Cumberland Valley -NPS – ATPO The Cumberland Valley is a rapidly developing residential and commercial area, due in part, to major transportation corridors that traverse the area. These include Interstate 81, the Pennsylvania Turnpike, and US Route 11. The center of the valley is home to numerous trucking terminals served by the major east/west and north/south routes. Land use planning is a significant concern to A.T. managers, as the trail corridor across the valley rarely exceeds 1000 feet. Historically the valley has been a major agricultural center with deep limestone soils. An ironstone diabase dike traverses the valley, causing several limestone springs to surface. The center piece of the Village of Boiling Springs, home to ATC's mid-Atlantic Regional Office, is such a phenomena. Boiling Springs feeds the Yellow Breeches Creek, an exceptional value trout stream. Beyond the loss of farmland and changes in land use, a major concern associated with rampant development across the valley is the proliferation of invasive species including mile-a-minute weed, Japanese barberry, ailanthus, and others.