

The Mid-Atlantic

Exotic Plant Management Team

Partner Parks and states: Appomattox Court House NHP, VA; Appalachian NST, VA; Booker T. Washington NM, VA; Colonial NHP, VA; Eisenhower NHS, PA; Fredericksburg and Spotsylvania County Battlefields Memorial NMP, VA; George Washington Birthplace NM, VA; Gettysburg NM Park, PA; Hampton NHS, MD; Hopewell Furnace NHS, PA; Petersburg NB, VA; Richmond NBP, VA; Shenandoah NP, VA; Thomas Stone NHS, MD; and Valley Forge NHP, PA.

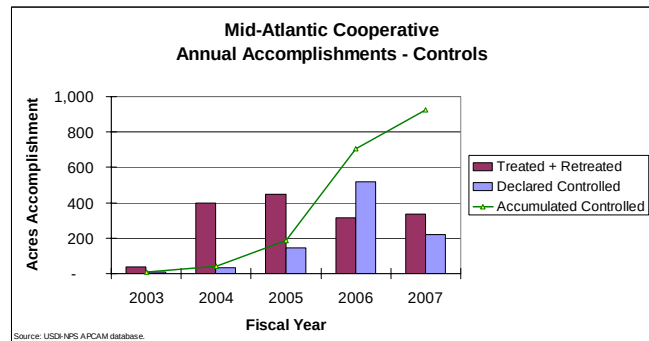
Accomplishments - 2007

Inventoried Acres	5,206
Gross Infested Acres	4,824
Infested Acres	415
Monitored Acres	540
Treated+Retreated Acres	336
Controlled Acres	221

The Mid-Atlantic Cooperative had an excellent year in field operations and public outreach. Year 2007 was a celebration of increasing productivity, improved efficiency, research activity, increasing partner park participation, and growing public engagement. The team served 15 park units in Virginia, Maryland, and Pennsylvania. Invasive plant treatments were done through a blend of workers from federal, private sector, nonprofit, and public ranks.

Treatment accomplishment increased by 6.4% from the previous year. This indicates a **9.1% improvement** when considering the negative 2.7% consumer price index for their locality on a flat budget. This achievement was a direct result of diversifying control efforts. The mainstay of the field work was performed by the Mid-Atlantic EPMT, a field team of three permanent staff, one summer Student Conservation Association (SCA) intern, and participating park staff. They treated 234 acres at 14 parks. A four-month SCA Team of five interns treated 69 acres at six parks. A retained private contractor treated 27 acres at three parks. Finally, the team organized public volunteers who treated 7 acres.

The impact of invasive annual plants is especially heavy in the Mid-Atlantic area. Many produce copious amounts of seed which is an effective invasive trait. Field research was conducted to test three herbicides in pre-emergent formulation against two targeted annuals, mile-a-minute vine and Japanese stiltgrass. Monitoring for impacts to non-target plants was also noted. The goals of the research were to determine whether pre-emergent formulations (1) offered better control against annuals and (2) were a means of expanding the treatment window. Pre-emergent herbicides are typically applied in late winter/early spring prior to seed germination. Where the herbicides imazapic, aminopyralid, and pendimethalin were compared,



Mid-Atlantic Cooperative Annual Accomplishments, 2003 – 2007.

results indicated that imazapic at 4-6 ounces per acre offered the best control against mile-a-minute and stiltgrass with least non-target impacts. Since all seed germination is impacted, we recommend that pre-emergent application of herbicides be reserved for sites highly impacted by invasives plants where local park botanists concur with its use.

The Team increased public awareness of invasive species threats by participating in ten news media interviews, speaking at ten public or professional meetings, publishing two articles in professional newsletters, creating seven reports available to the public, and responding to public queries for information on many occasions.

In its five-year history, the Mid-Atlantic Cooperative brought 925 acres into a controlled status. Invasive plants no longer dominate those areas. Thus, those areas are left clean to thrive and function in a native, natural condition. The benefits extend beyond the plant kingdom to animals, fungi, and other species that inhabit those areas. The accomplishment was brought about by effective treatments, annual monitoring, retreatment as needed, and the integral field work of park partners. (The graph above summarizes the achievement.)

Also in its five year history, the Mid-Atlantic Team grew from serving eleven park units in year 2003 to the present 15 parks in three states. Plans for expanding the Team's role and impact to parks in West Virginia are underway. New River Gorge National River will receive field assessment, inventory, and planning assistance in 2008. Expansion of the Cooperative has been made possible by effectively controlling the highest priority invasives to maintenance levels at the initial parks and by increasing operational efficiencies. The Mid-Atlantic Cooperative has a proud history and an encouraging future.

Collaboration / Prevention / Control

Collaboration is the hallmark for operations within the Mid-Atlantic Cooperative. Both prevention and control activities have been greatly enhanced by using the excellent energy, knowledge and skills of partner park staffs, contractors, nonprofit agencies, and public volunteers within the overall operations.



Public volunteers at worksite of Shenandoah National Park, April 28, 2007. Volunteers are an excellent way to get work done in the field while conveying the message about invasive species threats.

Working alongside park staffs has caused improved outcomes in control work. When the Mid-Atlantic Team works side-by-side with park staffs, the overall effort avoids blunders that outsiders might commit in strange territory. It increases effectiveness by utilizing local park equipment such as debris chippers, dump trucks, and other equipment that is not part of the Team cache. On the other hand, the Mid-Atlantic Team passes along their invasive plant control and survey best practices expertise to local staffs. Mini-training takes place as work takes place. Finally, organizational memory of treatments and program intent is enhanced for more effective follow-up and monitoring.

The flexible contract managed by the Mid-Atlantic EPMT is a tremendous benefit to the Cooperative. Year-end funds from the Team, from partner parks, and even from other EPMTs have been plowed into field treatments. During the years 2003-07, nearly 480 acres have been treated benefiting 11 parks on over 2,700 gross infested acres.

Nonprofit agencies have contributed a tremendous boon to the program in these austere federal budget times. The first such collaboration took place when the Colonial Williamsburg Foundation offered to work alongside our Team to tackle a 4-acre patch of kudzu vine that infested adjoining properties owned by the foundation and Colonial National Historic Park. Over the

course of three years, the foundation paid for their share of herbicides and staff time on initial treatments and nearly all subsequent follow-up staff time and expenses. Today the area is clean of troubling invasives.

Later, the National Park Foundation, in cooperation with the Tauck Foundation contributed funds for the development of a short-term volunteer program at Shenandoah National Park. The Team created, organized and managed the program for its first three years. In two years of full operations (2006-07), over 1,100 volunteers contributed nearly 2,300 hours of invasive plant control fieldwork. Over 70 gross infested acres were treated thus greatly contributing to the protection of the Park. The park is now preparing to take over the volunteer management after the program's successful initiation.



Mid-Atlantic EPMT staff speaks to 160 college students, September 3, 2007, on issues of invasive species threats and ways they can participate in avoiding future invasions by purchasing native nursery stock for their future homes. Native is beautiful!

The Team has been aggressive in public outreach with the purpose of enhancing invasive species prevention. As with the volunteer program above, over 1,100 directly heard the Team's message of the threats posed by invasives. By our tally, during the period 2003-07, an estimated 6 million citizens were reached through media releases, public speaking engagements, and professional presentations. These figures do not include household multipliers for newspapers and others. Through these contacts, the public has heard that as consumers, they can make a difference in slowing the introduction and spread of invasives by purchasing plant nursery stock for their homes that is native or at least non-invasive to the region. They have heard that without their labor and public advocacy, the nation will incur more infestations of invasive species. The Cooperative's hope is that public outreach will lead to reduction and prevention of future invasive species problems.

The Mid-Atlantic EPMT motto is "*Keep it beautiful, native and natural!*"