

National Park Service
U.S. Department of the Interior



Catoctin Mountain Park
Thurmont, MD

Catoctin Mountain Park White-tailed Deer Management Plan



Environmental Impact Statement

Public Scoping Meeting

You're Invited!

Your Participation Will Help Meet the Objectives

Your participation is vital to our planning process. Because of your interest in Catoctin Mountain Park, we are requesting your input in developing the White-tailed Deer Management Plan/Environmental Impact Statement (EIS). More detailed information will be available at public meetings about the plan.

Updates will be provided on the EIS at www.nps.gov/cato.

Comments can also be submitted to:
P. Scott Bell, Environmental Protection
Specialist
Catoctin Mountain Park
6602 Foxville Road
Thurmont, Maryland 21788
cato@den.nps.gov

Please be sure to include your full name and address with the comments so we may add you to our mailing list for information on future items in this process.

Scoping Meetings

Scoping is the first step to involve the public in the environmental impact analysis process. Because the environmental impact statement will analyze many complex ecological and social issues, your participation is encouraged and needed.

Public Scoping Meeting
Tuesday, November 9, 2004
5:30 pm to 9:00 pm
Catoctin High School
14745 Sabillasville Road
Thurmont, Maryland 21788

Alternatives Development Workshop
March 2005

National Park Service
U.S. Department of the Interior
Catoctin Mountain Park
6602 Foxville Road
Thurmont, MD 21788-1598



Sustaining a Forest: A White-tailed Deer Management Plan at Catoctin Mountain Park

The National Park Service (NPS) will soon begin preparation of the Catoctin Mountain Park White-tailed Deer Management Plan Environmental Impact Statement (EIS). Through this planning process, NPS seeks to focus its consideration of potential actions to determine deer population management options to sustain forest regeneration. NPS and Catoctin Mountain Park policies and other related requirements, as well as the National Environmental Policy Act (NEPA), will guide the plan and EIS.

Purpose of and Need for Taking Action

The purpose of this plan/EIS is to develop a range of alternatives for white-tailed deer (*Odocoileus virginianus*) management that supports forest regeneration and provides for long-term protection, conservation, and restoration of native species and cultural resources.

Action is needed at this time to address declining forest regeneration and to ensure that natural processes (including the presence of deer) support native vegetation, wildlife, and cultural resources.



Deer browse line is evidence of deer impacts to vegetation.

History of Deer Management at Catoctin Mountain Park

Significant changes have occurred across Maryland's physical landscape in recent years. Among the most dramatic of these changes is the resurgence of white-tailed deer. Extremely rare at the turn of the 20th century, deer populations in Maryland have not only rebounded, but now number more than at any other time in their history. Reduced natural predators and reduced numbers of humans reliant on the subsistence use of deer for food have contributed to greater numbers of deer throughout Maryland. White-tailed deer are also adaptable animals that have been exploiting changes in land uses. Both agricultural uses and land use patterns associated with suburban development have contributed to these changes that are favorable for deer use.

When Catoctin Mountain Park was established in 1936, it is likely that no white-tailed deer existed within the park's boundaries. Under the protection afforded by the park, the deer population eventually expanded. In 1981, the Catoctin Mountain Park resource management staff first raised the issue of potential adverse impacts from deer browsing on park vegetation and whether the park's unregu-

lated deer population might result in the decline of abundance and diversity of native plant species and reduce forest regeneration. Park staff began researching information related to interactions between deer and plant communities. Vegetation surveys and deer exclosures were instituted at the park to monitor the effects of deer browse on vegetation. Included in Catoctin Mountain Park's 1988 Resource Management Plan were concerns about potential loss of long-term forest regeneration and possible changes in water quality in park streams due to vegetation loss.

Park Research and Findings

Since the 1940s Catoctin Mountain Park has used a hands-off approach to deer management, relying on natural processes to manage deer populations. In 2001, a Technical Advisory Committee (TAC) was assembled to discuss the issues of forest regeneration and deer management at Catoctin Mountain Park. The TAC is made up of NPS resource personnel, other federal agency experts, university scientists, and subject experts. Several meetings were held in 2001 and 2002 to assist the park in evaluating existing vegetation monitoring data, deer population estimates, data collection method protocols, and to assess the need for new management alternatives.

The methods and protocols used to monitor vegetation impacts by deer and to determine deer populations have been modified or changed as the methodology and techniques improved—with greater interest in deer impacts on trees and shrubs. Studies conducted since 1990 indicate a significant decline in numbers of species and plants as well as seedling composition in plots, allowing the less preferred species to remain. This may indicate that deer have eaten their preferred food and now feed on less preferred food. The permanent vegetation plots have also shown there has been almost no tree regeneration over the past 10 years.

Deer population density estimates are made using Distance Surveys. In surveys conducted between the fall of 2000 and the fall of 2003, deer population densities between 112 and 192 per square mile were recorded. Research suggests deer density per square mile of forest to allow for desired forest regeneration is between 20 and 25 deer.



Vegetation plots show almost no tree regeneration over the last 10 years.

Deer Management Plan Objectives

The following objectives were developed to guide the planning process. Information will be shared with state and local governments, organizations, and private citizens to build support for this plan.

Vegetation

- Reduce adverse effects of deer browse pressure to ensure sufficient tree regeneration to sustain a native and diverse forest structure.
- Provide protection for threatened, endangered, and sensitive plant species and their habitats (e.g., the purple fringed orchid) from adverse impacts related to deer browsing to prevent browsing impacts from leading to extirpation.
- Maintain, restore, and promote a mix of native herbaceous plant species, and reduce competition between exotic plant species and native plant

species through effective deer management.

- Develop and implement informed, scientifically-defensible vegetation and wildlife impact levels and corresponding measures of deer population size that serve as a threshold for taking prescribed management actions in the park.

Wildlife and Wildlife Habitat

- Maintain a viable white-tailed deer population in the park while protecting other park resources.
- Protect lower canopy and ground nesting bird habitat from deer browsing's adverse impacts.

Cultural Resources

- Ensure that vegetation contributing to the park's cultural landscape is protected from the adverse effects of deer behavior (browsing, trampling, seed dispersal).

Visitor Experience

- Educate the public on the deer population, forest regeneration process and biotic diversity, and the role of deer as part of a functioning park environ, not the primary driving force within it.