

Totts Gap NHA – State Significance

		PNHP Rank ¹		PA Legal Status ¹		
Species or Natural Community Name:	Taxa	Global	State	(Proposed)	Last Seen	Quality ²
American Holly (<i>Ilex opaca</i>)	ile.	G5	S2	N (N)	1989	CD
Lion's-foot (Prenanthes serpentaria)		G5	S 3	N (PT)	2003	С
Upland Sand Cherry (Prunus pumila var. susquehanae)		G5T4	S2	N (PT)	1991	CD

Species or natural communities of concern that can be found in this NHA include the following:

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(Element type: Communities, Sensitive Species, Mammals, Birds, Fish, Amphibians, Mussels, Odonates, Lepidopterans, Plants) ¹See the PNHP website (<u>http://www.naturalheritage.state.pa.us/RankStatusDef.aspx</u>) for an explanation of PNHP ranks and legal status. A legal status in parentheses is a status change recommended by the Pennsylvania Biological Survey.

²See NatureServe website (<u>http://www.natureserve.org/explorer/eorankguide.htm</u>) for an explanation of quality ranks.

<u>Location</u>: This Natural Heritage Area occurs on the ridgeline of Blue Mountain, straddling the Monroe/Northampton county boundary line at Totts gap.

o Municipalities:

- o Monroe County: Smithfield Township, Stroud Township
- o Northampton County: Upper Mount Bethel Township
- o USGS Quadrangles: Stroudsburg
- o Watersheds (HUC 12): Cherry Creek, Delaware River-Jacoby Creek
- o 1999 Lehigh & Northampton Natural Areas Inventory reference: Includes part of "Minsi Lake Vernal Pools, Bear Swamp", "Totts Gap", "Totts Gap Swamp"
- 2005 Lehigh & Northampton Natural Areas Inventory Update reference: Includes part of "Minsi Lake Vernal Pools, Bear Swamp", "Totts Gap", "Totts Gap Swamp"

<u>Description</u>: Rocky outcrop openings and a thin forest canopy on the ridge-top provide habitat for three plant species of concern.

Element of Concern Considerations:

 American holly has a distribution from coastal New England south and west into Florida and Texas. In Pennsylvania, it is near the northern end of its range, and occurs mostly in the southeastern counties. The species grows on wooded slopes and stream banks. It has also been grown as an ornamental, particularly in the southeastern counties, and may escape locally to woodlots, thickets, and fencerows. The conservation of American holly in Pennsylvania has concentrated on protecting populations that are believed to be indigenous and that represent



Small, dry, rocky openings along the ridgeline at Totts Gap provide habitat for upland sand cherry, a shrub species of concern.

native genotypes. Occurrences of the species that have resulted from escapes from plantings are of uncertain genetic origin and are considered to be of much lower conservation significance. As a woodland species, proper forest management and control of invasive species are important for the long term viability of American holly.

- Lion's-foot ranges from southern New England south to Florida and west to Ohio and Mississippi. In Pennsylvania it has been documented in dry woods, clearings, and gravelly roadsides primarily in the southeastern part of the state. Active management, such as the use of prescribed fire, may be beneficial in maintaining these areas or in creating additional habitat. Excessive deer browse, especially on plants that are blooming, may be a threat at some locations
- Upland sand cherry ranges from Maine to Manitoba and south into North Carolina, Ohio, and Arkansas. In Pennsylvania, it has been documented historically mostly in the northeastern counties. The species grows on bedrock outcrops, rocky openings, barrens and thickets, especially on mountain tops and ridges. Most populations of Upland Sand Cherry in Pennsylvania are situated in remote areas where the habitat is likely to be kept in a natural state. Active management, such as the use of prescribed fire, may be beneficial in maintaining these areas or in creating additional habitat. Excessive deer browse, especially on plants that are blooming, may be a threat at some locations

Habitat Disturbances:

o Historic –

- The expansive forested ridgeline of Blue Mountain has remained relatively undisturbed despite repeated lumbering of the past several centuries. Small rocky outcrop openings can be seen along the ridgeline in historical aerial photos taken in 1938.
- A road and a utility corridor were cut over the mountain at Totts Gap sometime before 1938, fragmenting the otherwise contiguous forested area.

o Current -

- Additional utility corridors have been cut over the mountain and an access road runs along the ridgeline to a cluster of communication towers.
- Invasive species of plants are well adapted to the disturbed conditions associated with clearcuts, roadsides and utility corridors and are well established in the area.
- Suppression of wild fire has allowed trees to form a closed canopy over some of the former rocky openings, decreasing the available habitat for the plant species of concern.
- Over browsing by white-tailed deer is a serious threat to the overall understory plant diversity.

Conservation Actions:

- In the absence of wildfires, active management of open areas may be necessary to prevent their succession to closed canopy habitats. The habitat hosts several short tree, shrub species that should be encouraged to persist at the site including the PA-threatened upland sand cherry (*Prunus pumila var. susquehanae*), dwarf chestnut oak (*Quercus prinoides*), and scrub oak, (*Quercus ilicifolia*). Careful attention must be paid to which species of trees and shrubs are being removed.
- Control invasive species of plants to prevent native species from being crowded out by introduced species. Invasive species removal efforts should focus on reducing the prevalence of woody species such as Norway maple, Japanese barberry, amur honeysuckle, and multiflora rose. Target pioneer populations of invasive plants for immediate and continued removal. It is much easier and more effective to keep a place invasive-free than to try and repair a heavily infested habitat. Continual invasive species monitoring and control will be necessary.
- Reduce the deer density in the area. Uncommon species of native plants are particularly susceptible to deer herbivory.

References:

NatureServe. 2013. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available at <u>http://www.natureserve.org/explorer</u>.

Pennsylvania Natural Heritage Program. 2013.

- Rhoads, A. F. and W. M. Klein, Jr. 1993. The Vascular Flora of Pennsylvania: Annotated Checklist and Atlas. American Philosophical Society, Philadelphia.
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