

Shawangunk Ridge Critical Environmental Area

Justification and Significance:

Biological and Geological Uniqueness

The Shawangunk Ridge is one of New York's most iconic landscape features and one of the highest priority areas for biodiversity conservation in the northeastern United States according to the New York State Open Space Conservation Plan. The Nature Conservancy has designated the Shawangunk ridge as one of the Earth's "Last Great Places." It is also identified as a top priority in the Town of New Paltz Open Space Plan, noted for its unique geology and ecological significance.

The Shawangunk Ridge is comprised of Shawangunk conglomerate, a highly resistant bedrock formation comprised of quartz sand and pebbles held together by a quartz cement. Sensitive geologic features include cliffs, talus, and boulder fields. Bonticou Crag is a notably unique geologic feature on the ridge in New Paltz.

The Northern Shawangunk Ridge is designated as a Significant Biodiversity Area in the DEC's Hudson River Estuary Wildlife and Habitat Conservation Framework because of its unique geology, the presence of extensive rare and exemplary natural communities, and the occurrence of multiple rare species. The ridge supports state-exemplary examples of natural communities including hemlock-northern hardwood forest, chestnut oak forest, and vernal pool. In addition, the cliff, talus, and boulder fields of the ridge provide unique and crucial habitat for many species. The New York Natural Heritage Program (NYNHP) has documented occurrences of Peregrine Falcon (NY-Endangered) and Timber Rattlesnake (NY-Threatened) in the Shawangunk Ridge CEA, as well as NY-Threatened Mountain Spleenwort, a rare plant.

The Northern Wallkill Biodiversity Plan identifies the Mohonk Uplands and Bonticou Crag areas of the ridge as priority biodiversity areas and notes the presence of habitat on the ridge for several NY-Special Concern reptiles and amphibians including Eastern Box Turtle, Wood Turtle, Jefferson Salamander, and Marbled Salamander. In addition, the Northern Shawangunk Ridge is designated as an Important Bird Area by Audubon New York and noted as an exceptional example of a characteristic higher elevation forest bird community, including NY-Special Concern Cerulean Warbler and Sharp-Shinned Hawk.

Forests of the Shawangunk Ridge in New Paltz contribute to a statewide forest linkage zone connecting the globally significant forests of Minnewaska State Park and the Shaupeneak matrix forest block east of the NYS Thruway (including the Plutarch Woods and Wetlands Critical Environmental Area). This area contributes to regional wildlife habitat connectivity and is threatened by fragmentation from residential development. The DEC Habitat Summary report for New Paltz states that "Forest fragmentation is the process of breaking large blocks of forest into smaller areas, often by clearing it for new roads or development. Fragmentation decreases forest habitat quality and health, disrupts wildlife movement, and facilitates the spread of invasive species. These impacts are greatest at forest edges but can extend for hundreds of feet into forest blocks, often displacing sensitive species that depend on interior forest" (pg. 12). Conservation

of “core forest” habitat at least 100-meters from the edge of a forest, as well as maintaining connected corridors between core forest areas, will support the continued ecological integrity of the larger forest block on the ridge.

The Town Open Space Plan states that “The ridge and its associated chestnut oak forest is perhaps the most ecologically-fragile and significant feature in the Town and should be preserved and protected to the highest extent possible. As identified by TNC, the most significant threat to the ridge is ‘encroaching development... particularly along the base of the ridge.’ In New Paltz, a good portion of the ridge top is protected as part of the Mohonk Preserve; however, there are numerous parcels along the base of the ridge above the ‘break-in-slope’ that are unprotected. Some of these parcels have been subdivided and developed with residential houses while others remain relatively open. Also worth noting, there are several large parcels of land along the ridge top that are privately owned and managed as part of the Mohonk Mountain House. While these parcels are currently being managed and stewarded as open space with minimal resort-style tourism, they do not as of yet have permanent protected status. Permanently protecting the remaining ridge habitat is critical to the ecological integrity of the ridge. Also of importance is the need for habitat connectivity between the ridge and other major wildlife habitats such as wetland and stream corridors” (pg 12).

Much of the Shawangunk Ridge is classified by the Nature Conservancy as providing “above average” climate resiliency for biodiversity owing to intact, connected habitats topographic complexity, and geologic diversity. Resilient sites are likely to continue to support high biodiversity and allow for the adaptation of species and natural communities in a rapidly changing climate.

Hydrology and Water Supply

Forests of the Shawangunk Ridge CEA provide clean water and watershed protection for the Mountain Rest Ponds reservoir system, a public water supply serving approximately 6,800 people in the Village and Town of New Paltz. Forests and wetlands on the ridge also provide clean water to the Kleine Kill and other headwaters tributaries of the Wallkill River. These stream corridors are also important wildlife travel corridors between the ridge and lowlands along the Wallkill River. Talus boulder fields on the ridge are also important aquifer recharge areas that protect ground water quality and contribute to base flow in streams.

Scenic, Cultural, and Recreational Value

The Shawangunk Ridge is a defining scenic landmark for New Paltz. Protection of scenic views both to and from the ridge are cited as priorities in the Town of New Paltz Open Space Plan and the Shawangunk Mountains Scenic Byway Corridor Management Plan.

The Mohonk Preserve and Mohonk Mountain House are designated a National Historic Landmark. The Mohonk Preserve is a major recreational resource that attracts over 200,000 visitors annually to the Shawangunk Ridge.

May 2021

References:

Anderson, M.G., A. Barnett, M. Clark., J. Prince, A. Olivero Sheldon. and B. Vickery. 2016. Resilient and Connected Landscapes for Terrestrial Conservation. The Nature Conservancy, Eastern Conservation Science, Eastern Regional Office. Boston, MA.

<https://conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/edc/reportsdata/terrestrial/resilience/Pages/default.aspx>

LaBruna, D. T. and M. W. Klemens. 2007. Northern Wallkill Biodiversity Plan: Balancing Development and Environmental Stewardship in the Hudson River Estuary Watershed. MCA Technical Paper No. 13, Metropolitan Conservation Alliance, Wildlife Conservation Society, Bronx, New York. Retrieved from

https://www.townofnewpaltz.org/sites/g/files/vyhlf3541/f/file/file/northern_wallkill_biodiversity_plan.pdf

Mohonk Preserve. 2021. Mohonk Preserve website. <https://www.mohonkpreserve.org/>

Nardi-Cyrus, N. 2019. Natural Areas and Wildlife in Your Community: A Habitat Summary for New Paltz. New York State Department of Environmental Conservation Hudson River Estuary Program. Retrieved from <https://www.townofnewpaltz.org/environmental-conservation-board/pages/new-paltz-habitat-summary-report-and-rare-species-list>

The Nature Conservancy and the New York Natural Heritage Program. Matrix Forest Blocks and Linkages. 2006. Retrieved from <https://gis.ny.gov/gisdata/inventories/details.cfm?DSID=1261>

New York Natural Heritage Program Data Inquiry. 2021. (see attached)

New York State Open Space Conservation Plan. 2016. New York State Department of Environmental Conservation and the Office of Parks, Recreation and Historic Preservation. Retrieved from <https://www.dec.ny.gov/lands/98720.html>

New York State and National Registers of Historic Places. State Historic Preservation Office. 2021. Retrieved from <https://parks.ny.gov/shpo/national-register/>

Penhollow, M. E., P. G. Jensen, and L.A. Zucker. 2006. Wildlife and habitat conservation framework: An approach for conserving biodiversity in the Hudson River estuary corridor. New York Cooperative Fish and Wildlife Research Unit, Cornell University and New York State Department of Environmental Conservation, Hudson River Estuary Program, Ithaca, NY. Retrieved from

https://www.dec.ny.gov/docs/remediation_hudson_pdf/hrebcf.pdf

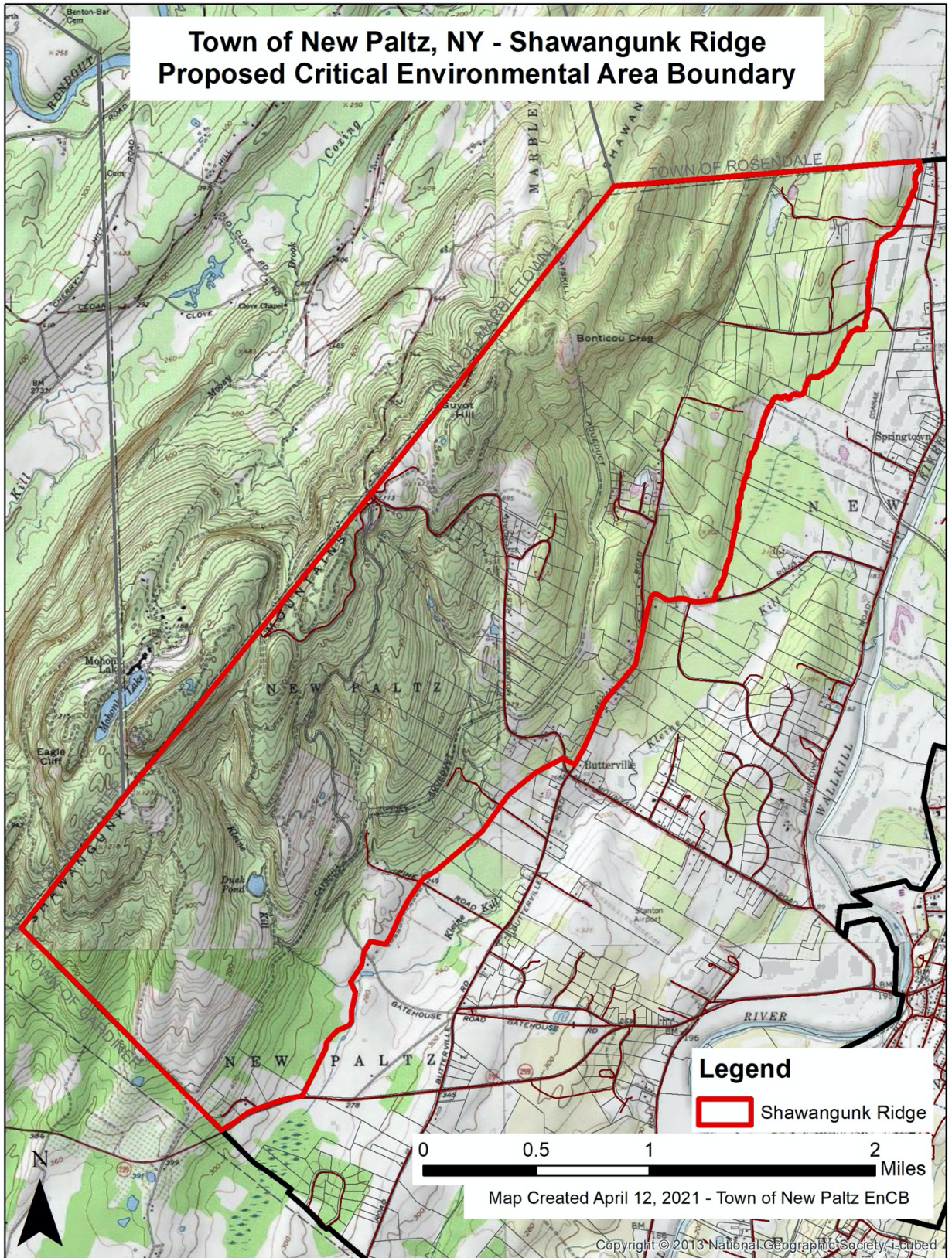
Shawangunk Mountains Scenic Byway. 2005. Shawangunk Mountains Scenic Byway Corridor Management Plan. Retrieved from <https://www.mtnscenicbyway.org/corridor-management-plan/>

Town of New Paltz. 2006. New Paltz Open Space Plan: A Framework for Conservation for the Town and Village of New Paltz, New York. Behand Planning Associates, LLC. Retrieved from <https://www.townofnewpaltz.org/building/pages/open-space-plan-2006>

May 2021

Location:

Bordered on the west by the Rochester and Marbletown town lines, on the north by the Rosendale town line, on the south by the Gardiner town line and State Route 299, and on the east by the break in slope (and portions of Canaan Rd and Dug Rd) between the Humpo Kill, Kleine Kill, and Springtown flats and the rising foothills of the Shawangunk Ridge. The area is about 4,016 acres in size and is shown on the following map.





The following rare plants, rare animals, and significant natural communities**
 have been documented in the Natural Heritage database
 within the proposed

**Shawangunk Ridge Critical Environmental Area
 Town of New Paltz**

March 2021

| | COMMON NAME | SCIENTIFIC NAME | NY STATE LISTING | NY STATE RANK* |
|-----------------|----------------------------------|---------------------------------------|------------------|----------------|
| Birds | Peregrine Falcon | <i>Falco peregrinus</i> | Endangered | S3B |
| Reptiles | Timber Rattlesnake | <i>Crotalus horridus</i> | Threatened | S3 |
| Vascular Plants | Mountain Spleenwort | <i>Asplenium montanum</i> | Threatened | S2S3 |
| Mosses | Two-ranked moss | <i>Pseudotaxiphyllum distichaceum</i> | Unlisted | S2S3 |
| Communities | Vernal Pool | | | S3 |
| | Hemlock-Northern Hardwood Forest | | | S3 |
| | Chestnut Oak Forest | | | S4 |

* Conservation status in NYS as ranked by NY Natural Heritage Program on a 1 to 5 scale:

- S1 = Critically imperiled
- S2 = Imperiled
- S3 = Rare or uncommon
- S4 = Abundant and apparently secure
- S5 = Demonstrably abundant and secure
- SNA = Status not assessed or assigned.

B after a rank indicates the status for breeding populations of that species.

N after a rank indicates the status for wintering (nonbreeding) populations of that species.

Information about many of the rare animals, rare plants, and natural communities in New York, including habitat, biology, identification, conservation, and management, are available online in Natural Heritage’s Conservation Guides at www.guides.nynhp.org.

** Natural communities in this report are considered significant from a statewide perspective by the NY Natural Heritage Program. They are either occurrences of a community type that is rare in the state, or a high-quality example of a more common community type. By meeting specific, documented criteria, the NY Natural Heritage Program considers these community occurrences to have high ecological and conservation value.

May 2021

This report only includes records from the NY Natural Heritage databases. For most sites, comprehensive field surveys have not been conducted, and we cannot provide a definitive statement as to the presence or absence of all rare or state-listed species. This information should not be substituted for on-site surveys.

New York Natural Heritage Program

SUNY College of Environmental Science and Forestry

In partnership with NYS Department of Environmental Conservation

625 Broadway, Albany, NY 12233-4757, (518) 402-8935, NaturalHeritage@dec.ny.gov

www.nynhp.org

