

Upper Lick Run NHA

A site of Regional Significance







Lick Run flows south into the Youghiogheny River, descending from Laurel Ridge. It is a picturesque tumbling creek, flowing over round boulders, with a wide floodplain covered with spring ephemeral wildflowers. The surrounding forest is mature, characterized by sugar maple (*Acer saccharum*) and basswood (*Tilia americana*). The rocky streamside habitat supports a population of the West Virginia water shrew (*Sorex palustris punctulatus*), a rare, semi-aquatic mammal, endemic to the Appalachians. Two rare forest plants grow on slopes along the edges of small roads, **thick-leaved meadow-rue** (*Thalictrum coriaceum*) and **stiff cowbane** (*Oxypolis rigidior*). South-facing limestone outcrops along the steep Youghiogheny gorge also support populations of the **Allegheny woodrat** (*Neotoma magister*). The mature forest canopy here, in addition to sugar maple and basswood, also contains oaks (*Quercus rubra*, *Q. alba*, *Q. montana*), blackgum (*Nyssa sylvatica*), and shagbark hickory (*Carya ovata*).



Steep forested slopes along Lick Run. Photo: Betsy Leppo, PNHP

This site is of Regional significance. It has been assigned this significance level because of the occurrence of at least two globally vulnerable (G3) species, such as West Virginia Water Shrew (*Sorex palustris punctulatus*), within this NHA.

All species tracked by PNHP documented at this NHA include:

Species or Natural Community Name		Global ¹	State ¹	PA Legal Status ¹	PABS Status ¹	Last Observed	Quality ²
Allegheny Woodrat (<i>Neotoma magister</i>)		G3G4	S2	PT	PT	2014	E
West Virginia Water Shrew (<i>Sorex palustris punctulatus</i>)		G5T3	S2	PT	PT	2018	AB
Appalachian Cottontail (<i>Sylvilagus obscurus</i>)		G4	S1S2	–	–	2015	E
Stiff Cowbane (<i>Oxypolis rigidior</i>)		G5	S3	TU	PR	1997	D
Thick-leaved Meadow-rue (<i>Thalictrum coriaceum</i>)		G4	S2	PE	PT	2006	D
Tiger Spiketail (<i>Cordulegaster erronea</i>)		G4	S3	–	–	2008	AC

¹ See the PNHP (<http://www.naturalheritage.state.pa.us/rank.aspx>) for an explanation of PNHP ranks and legal status. PABS status refers to the status recommended by the Pennsylvania Biological Survey.

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

Threats and Species Recommendations

Portions of this site are protected as State Game Land and Ohio State Park, but other sections remain unprotected. The water quality of Lick Run is very high, and the floodplain is diverse and undisturbed. Avoid further developments within the watershed. The forest plants found at this site occur along roadsides, and care should be taken to minimize disturbance from road maintenance, and ensure that ATV use is limited. Monitor deer populations and deer-browse levels, and manage invasive plant populations as necessary. Avoid quarrying or other direct disturbances to rock outcrops. Specific threats and stresses to the elements present at this site, as well as conservation actions, include:

- Degradation of water quality can have a negative impact on the habitat supporting the species of concern found at this location. The stormwater runoff from roadways, suburban development, and agriculture should be considered a potential source of significant contamination for the wetland habitat. Runoff from these sources has significantly higher levels of sediment, nutrients, pesticides, herbicides, and other pollutants than runoff filtered through a natural habitat. Maintaining a high quality aquatic habitat is important to the species of concern found at this location. Improve water quality and maintain the water quantity by protecting and enhancing existing aquatic habitats by monitoring water quality and enforcing protections. Best management practices (BMPs) that focus on limiting the introduction of non-point

sources of pollution into surface and groundwater should be applied to the surrounding area, including creating buffers to protect wetlands and waterbodies from upland disturbances.

- Over-browsing by white-tailed deer is a serious threat to the overall understory plant diversity. An overabundance of deer can create the effect of park-like forests in which the understory and vertical stratification is greatly reduced. The loss of understory species eliminates habitat for some nesting songbirds as well as increasing competition between deer and other wildlife due to reduced food sources. Reduction of deer populations to control overgrazing, or maintenance of low deer populations at this site, may be necessary to maintain site diversity. Uncommon species of native plants are particularly susceptible to deer herbivory.
- Fragmentation of existing habitat poses a threat to species of concern. Avoid fragmenting the existing forested areas with additional buildings or infrastructure. Avoid logging in this area except as it relates to invasive species removal. The forest cover should be allowed to achieve and maintain old-growth characteristics.
- Aggressive non-native plant species are a potential threat. Left to spread, these species can crowd out the species of concern, as well as other native plant species. Monitor for invasive plant species and remove them prior to becoming dominant at this site, if possible. 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 to repair a heavily infested habitat. Invasive species management should be coordinated by individuals familiar with the rare species as well as the invasive species present. Continual invasive species monitoring and control will likely be necessary.
- Thick-leaved meadow-rue is rare through much of its range, and because it requires particularly undisturbed forest habitat, it is very sensitive to human impacts. It is also known to be threatened by deer browse and invasive species. Recovery of thick-leafed meadow rue in Pennsylvania will require preservation and protection of unaltered woodlands within the plant's historical range. Limit disturbances near populations. Consider deer population management, as well as invasive species management near occurrences, if necessary.
- The decline of the American chestnut (*Castanea dentata*) after the introduction of chestnut blight (*Endothecia parasitica*) is thought to have played a role in the decline of Allegheny woodrats. These trees were formerly an important food source for woodrats, producing a much more reliable crop of nuts than other trees. Blight-resistant American chestnut trees should be planted at this site, and the survival of the trees should be monitored to ensure the success of the reintroduction. For more information, see the website of resources on the American chestnut maintained by the Pennsylvania chapter of The American Chestnut Foundation, linked in the references (PA-TACF 2019).
- Raccoon roundworm (*Baylisascaris procyonis*) is prevalent in many parts of Pennsylvania, and is often lethal to Allegheny woodrats. Raccoons are the primary host for the worm, but domestic dogs can also carry it. Roundworm levels in raccoons near this site should be monitored, and if levels are high then a program to treat raccoons with drugged bait pellets could be initiated.
- Acorns are a major part of the diet of Allegheny woodrats, but their production can be reduced by gypsy moths (*Lymantria dispar*), an introduced species that eats the leaves of oaks and other trees. Oaks may be stressed by the moths, reducing their crops of acorns, or they may be killed after several rounds of defoliation. Gypsy moths should be monitored at this site, and if present at high levels control methods should be considered. For more information on gypsy moth control methods, see the Pennsylvania Department of Conservation Natural Resources' maintained webpage on gypsy moth management (Pennsylvania Department of Conservation Natural Resources 2019).

We envision this NHA site account as one of the first steps for promoting conservation management actions to support the species of concern at the site. Many of these sites may have multiple habitat types present and require a mix of conservation strategies that may occasionally conflict. PNHP staff are available for additional consultation to help address specific site challenges. For additional information, please contact naturalheritage@paconserve.org.

Location

Municipalities: Fayette County: Stewart Township; Somerset County: Lower Turkeyfoot Township

USGS quads: Mill Run, Ohiopyle

Previous CNHI reference: This site does not overlap a previously published site.

Associated NHAs: This site is associated with the following other NHAs: Middle Youghiogheny River Gorge . We recommend consulting the accounts for those sites for additional conservation information.

Overlapping Protected Lands: Bear Run Nature Reserve, Ohiopyle State Park, State Game Land III

Approximate Acreage: 2097 acres

References

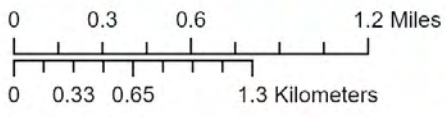
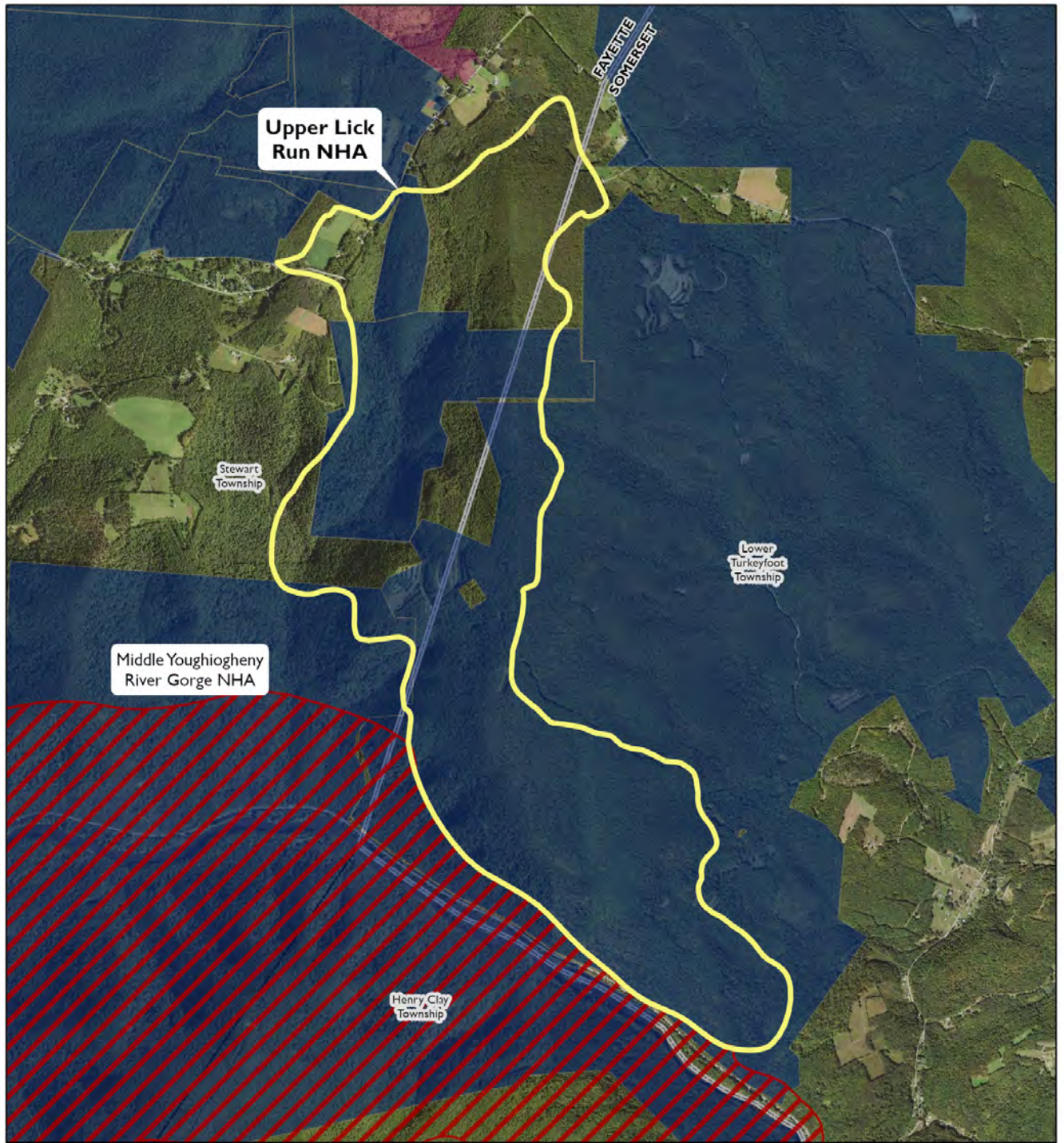
PA-TACF (2019). *Resources and Links – PA/NJ Chapter of The American Chestnut Foundation PA*. URL: <https://patacf.org/membership/resources/> (visited on 01/31/2019).

Pennsylvania Department of Conservation Natural Resources (2019). *Gypsy Moth*. Pennsylvania Department of Conservation Natural Resources. URL: <https://www.dcnr.pa.gov/443/Conservation/ForestsAndTrees/InsectsAndDiseases/GypsyMoth/Pages/default.aspx> (visited on 01/30/2019).



This Natural Heritage Area was developed as part of an update to the Southwest Pennsylvania Commission with funding from the DCNR Community Conservation Partnership Program.

Please cite this Natural Heritage Area as:
Pennsylvania Natural Heritage Program. 2021. Upper Lick Run NHA. Created on 13 Jan 2021.
Available at: <http://www.naturalheritage.state.pa.us/inventories.aspx>



- NHA Core Habitat
- Other NHAs
- Protected Land
- Conservation Easement

