

# Twin Hills Park NHA

## A site of Global Significance

The majority of this NHA is within Twin Hills Park, a 25-acre wooded area located south of Pittsburgh. Twin Hills Park is surrounded on all sides by dense residential development. An unnamed intermittent stream with steep banks flows west through the site and eventually drains into Chartiers Creek. This NHA supports two snail species of concern: **armed snaggletooth** (*Gastrocopta armifera*) and the globally imperiled **Maryland glyph** (*Glyphyalinia raderi*), a burrowing snail species found rarely on rocky calcareous limestone substrates.

This site is of Global significance. It has been assigned this significance level because of the presence of a globally rare species, such as Maryland Glyph (*Glyphyalinia raderi*), which occurs within the NHA. Sites designated as Globally Significant are of highest conservation concern within the Commonwealth.

All species tracked by PNHP documented at this NHA include:

| Species or Natural Community Name                  | Global <sup>1</sup> | State <sup>1</sup> | PA Legal Status <sup>1</sup> | PABS Status <sup>1</sup> | Last Observed | Quality <sup>2</sup> |   |
|--|---------------------|--------------------|------------------------------|--------------------------|---------------|----------------------|---|
| Armed Snaggletooth ( <i>Gastrocopta armifera</i> ) | ●                   | G5                 | S3                           | –                        | –             | 2005                 | E |
| Maryland Glyph ( <i>Glyphyalinia raderi</i> )      | ●                   | G2                 | S2                           | –                        | –             | 2005                 | E |

<sup>1</sup> 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.

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

## Threats and Species Recommendations

Prior to 1940, land use within the NHA was agricultural, with dense development located southeast of the site. In the 1950s, the existing development expanded towards the site and new residential developments were constructed off of Greentree Rd/S.R. 121. By 1958, the NHA was tightly bordered by development on all sides as it is today. Twin Hills Park is managed by the Mt Lebanon Nature Conservancy. Given its current ownership, encroachment of surrounding development is unlikely. However, due to the close proximity to development, the habitat is threatened by invasive species and polluted stormwater runoff. Land snails such as Maryland glyph and armed snaggletooth are particularly sensitive to environmental pollutants, as they take in contaminants at high rates. They also depend upon the presence of decaying organic matter in their habitat. Recreational trails within Twin Hills Park have the potential to reduce available habitat, if the trail network is expanded, and contribute to the introduction of aggressive non-native species. Specific threats and stresses to the elements present at this site, as well as conservation actions, include:

- Land snails are known to take up environmental pollutants at relatively high rates, and this can have negative physiological impacts on individuals, in addition to leading to bioaccumulation of these pollutants up the food chain; other invertebrates prey on land snails, as do small mammals, amphibians, reptiles, and birds. Protect and enhance existing terrestrial and wetland habitats to limit pollutant inputs. Best management practices (BMPs) that focus on reducing 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 from upland disturbances. To reduce pollution of upland areas, limit roadway fragmentation of habitat. More information about land snail ecology is available online, through the Carnegie Museum of Natural History (Hotopp et al. 2013)
- Deer overbrowsing in forests can reduce the organic matter and shelter—such as decaying logs—that land snails and slugs rely on. Reduction of deer populations to control overgrazing, or maintenance of low deer populations at this site (Northeast Deer Technical Committee 2009), is likely to improve habitat quality for this species.

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](mailto:naturalheritage@paconserve.org).

## Location

**Municipalities:** Allegheny County: Scott Township, Mt Lebanon Township

**USGS quads:** Pittsburgh West

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

**Associated NHAs:** This site is not directly associated with another NHA.

**Overlapping Protected Lands:** This site is not documented as overlapping with any Federal, state, or locally protected land or conservation easements.

**Approximate Acreage:** 43 acres

### References

Hotopp, K.P. et al. (2013). *Land Snails and Slugs of the Mid-Atlantic and Northeastern United States: Carnegie Museum of Natural History*. URL: <http://www.carnegiemnh.org/science/mollusks/> (visited on 04/20/2018).

Northeast Deer Technical Committee (2009). *An evaluation of deer management options*. URL: <https://www.pgc.pa.gov/Wildlife/WildlifeSpecies/White-tailedDeer/Documents/deermgmtoptions.pdf> (visited on 01/30/2019).

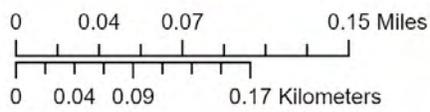


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-  NHA Core Habitat
-  Other NHAs
-  Protected Land
-  Conservation Easement

