**Skyview Preserve Herpetological Public Report
Reporter: Mark Manning**

**Survey Year: 2015**

**General Profile:**

 The Skyview Preserve is a 72-acre land preserve owned and managed by the Friends of Hopewell Valley Open Space. The preserve features a diversity of habitats within its boundaries, including several fields, several stretches of mature deciduous forest, and a small patch of wetlands that becomes a feeder stream into Woodsville Brook. A portion of the Woodsville Brook runs through the property. There are several shale banks within the forest, and shale provides a large amount of natural cover on the banks and bed of Woodsville Brook. There is at least one vernal pool on the property (vocalizations of an obligate vernal pool breeder, the wood frog, *Lithobates sylvaticus*, were observed near the pool during a nighttime auditory survey, and wood frog egg masses were later observed within it). The property is located on the Piedmont physiographic region.

**Survey Methodology:** The herpetological data collected during this project was taken using both visual and auditory surveys. Visual surveys were done for species by searching likely habitat, as well as turning cover objects on land, adjacent to water, and within streams. Species-specific surveys were done using patterns in breeding phenology and habitat preferences for various species. Coverboards were employed for use in collection of snake data. Visual and auditory vernal pool surveys were done during spring emergence to check for vernal pool breeders. Auditory frog call surveys were done in the evenings during appropriate times of the year, as well as incidental frog call data collected during daytime surveys. Care was taken not to excessively disturb any sensitive habitat, such as vernal pools or rotting logs. The specimens were not harmed, nor were they unnecessarily handled. Snake specimens were frequently handled to be checked for signs of *Ophidiomyces* infection, and no signs were found to be present on specimens. No equipment was used that might transmit fungal infections. All data was recorded to include the date, time of visit, and weather conditions. In lieu of a GPS, a map was printed and divided into sections, and the locations of the specimens were reported in reference to the sections on the map. All recorded data will be provided along with the report.

**Breeding Populations:**
 Due to observed population densities and projected stability of the species identified in the survey, it is likely that these species are maintaining breeding populations at this location. The presence of suitable year-round habitat, as well as appropriate prey items in adequate numbers, reinforces the notion that these populations are stable. Many amphibians and some reptiles use vernal pools, which are temporary pools created by snowmelt or spring rains. These pools are selected by amphibians largely because of the lack of fish predation on the tadpoles. In some cases, amphibians will use permanent ponds, provided that they are free of potential predators, and provided that the pools contain water for the duration of the development of the tadpole. There is at least one such pool at the Skyview Preserve. Vernal pool breeders are classified as either ***obligate breeders***, which are species that must use a vernal pool to breed, or ***facultative species***, which will gravitate toward vernal pools if available, but will use other semi-permanent or permanent wetlands if vernal pools are not found.

**Results:**In total, four frog/toad species, two salamander species and two snake species (total species count 8) were observed during surveys at Skyview Preserve in 2015. A list of individual species is provided below. Based on these findings, Skyview Preserve hosts populations of *at least* 11% of the possible reptile and amphibian species native to New Jersey ***including*** *potentially extirpated species and species native only to the New Jersey Pine Barrens.* Of the possible reptile and amphibian species native to Mercer County,Skyview Preserve hosts populations of *at least* 16% species, not including potentially extirpated species. One obligate vernal pool species and three facultative vernal pool species were observed.

**Cumulative Assessment Total-Complete Species List for 2015 for the Skyview Preserve (8 Species):**

* Northern two-lined salamander (*Eurycea bislineata*)
* Eastern red-backed salamander (*Plethodon cinereus*)
* Northern gray treefrog (*Hyla versicolor*) F
* Northern spring peeper (*Pseudacris crucifer crucifer*) F
* Northern green frog (*Lithobates clamitans melanota*) F
* Wood frog (*Lithobates sylvaticus*) O
* Northern water snake (*Nerodia s. sipedon*)
* Eastern garter snake (*Thamnophis sirtalis sirtalis*)

O obligate vernal pool breeders
F facultative vernal pool breeders

**About the Surveyor:**
All surveys results, along with an official report, were submitted by Mark Manning. Mark is a teacher of chemistry and toxicology at Hopewell Valley Central High School in Pennington, New Jersey, a volunteer naturalist for the Friends of Hopewell Valley Open Space, and a board member at the Washington Crossing Audubon Society. He has experience leading nature walks and outdoor programs on poisonous plants, reptiles and amphibians, and birding for beginners, as well as teaching virtual programs on poisonous plants of the Northeastern United States. His greatest passions are exploring the outdoors with his family, and introducing people to the natural wonders of New Jersey.