Indiana Gazette

NATURALLY: Indiana County’s 'holy grail' of snakes

- By ED PATTERSON Special to the Gazette
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Hognose snakes have been documented in 27 of the Pennsylvania’s 67 counties. They are found primarily east of the Allegheny Front.

Courtesy Don Becker

On July 7, 1908, Daniel Atkinson and Gustav Link boarded a train in Pittsburgh for Indiana County. Their mission was to survey Indiana County’s reptiles and amphibians on behalf of the Carnegie Museum.

In the early 1900s, Carnegie Museum curators took a great interest in documenting amphibian and reptile species throughout western Pennsylvania and West Virginia. Indiana County was one county targeted for study.

According to the Carnegie Museum archives, “Daniel Atkinson began as an undergraduate student while attending Western University of Pennsylvania, later renamed the University of

Pittsburgh. Atkinson was an overall naturalist, which was common at the time, and added specimens to many of the collections at the museum. After further schooling, Atkinson obtained a medical degree. But he continued to be connected with the museum and was instrumental in laying the foundation of the museum collection, contributing more than 4,000 specimens."

On July 8, 1908, Atkinson and Link arrived in the Cherry Tree area of Indiana County, and one of their most significant finds was a collection of 15 eastern hognose snakes. Their findings were especially significant because since that day no other hognose snakes have ever been documented in Indiana County.

For herpetologists, they remain the holy grail of snakes within the county. Were the 15 collected that day the entire population in the county? Since that time, has the appropriate habitat for them been lost? Do they still occur here but have they just eluded detection?

The hognose snake is found in woodlands with sandy soil, fields, and farmland. It is mainly active during the day. It is classified as non-venomous, but its bite is mildly toxic. Its primary food source consists of various amphibians, with a strong preference for frogs and toads. Its upturned nose is useful for digging up toads in sandy soils. When disturbed, a toad will often enlarge like a balloon. The hognose uses its long rear fangs to deflate the toad so it can swallow it. Adults range in size from 20 to 33 inches.

Hognose snakes dig a burrow in late fall to hibernate in, or use an abandoned fox, skunk, or woodchuck den. Predators of the eastern hognose snake include hawks, skunks, opossums, and other snakes. Some are also lost to roadkill.

There are many color variations of hognose snakes. Older adults have entirely dark coloration.

The hognose snake exhibits an interesting and dramatic behavior when encountered. It is sometimes referred to by the common name of "puff adder" and when threatened, it will raise its head, puff out and flatten the skin around its neck. It will also hiss loudly and lunge towards the threat. If this behavior does not work, it will roll over onto its back, open its mouth, hang out its tongue, play dead and emit a foul-smelling musk. If it is rolled back onto its belly after playing dead, it will often roll back onto its back again. The hognose may play dead for several minutes before carefully looking around to see if it is safe to move.

In Pennsylvania, hognose snakes have been documented in 27 of the state's 67 counties. They are found primarily east of the Allegheny Front.

During Pennsylvania Amphibian and Reptile Surveys (PARS), there have been 413 documented records of hognose snakes since 2013. One hognose was recorded in nearby Cambria County and four were documented in Clearfield County. In Pennsylvania, the eastern hognose is

classified as a species of special concern due to the potential for habitat loss and the limited number of formally documented records.

The hognose snake remains elusive but, possibly, one will wander into Indiana County and be encountered by someone. Then Indiana County's holy grail of snakes will finally be achieved. For now, the 15 hognose snakes collected in Indiana County in 1908 remain housed in glass vials at the Carnegie Museum.

If learning about the hognose snake has intrigued you, there is much more to explore at the Pennsylvania Herp Identification website, which provides an educational tool for the public on the reptiles and amphibians found throughout Pennsylvania: https://www.paherps.com.

Ed Patterson is director of Indiana County Parks & Trails. The Naturally columns are brought to you each month by the Indiana Gazette and Friends of White's Woods to showcase the wonders of nature in our area.