



The northern pine snake (*Pituophis m. melanoleucus*)



Photo: Brian Zarate

The northern pine snake is one of the iconic species of the New Jersey Pinelands, and is totally isolated from all other pine snake populations throughout the country. This disjunct nature adds to its importance and vulnerability since natural immigration or recolonization from surrounding populations is not possible. Its range is limited to a narrow fringe of pinelands habitat that occurs within the eastern portion of the United; it is found nowhere else in the world.



Photo: Bill Pitts

As part of the NJ Division of Fish & Wildlife's 2009 status assessment, we contacted biologists from each of the states in the pine snake's historic range and asked them to respond to a questionnaire about the current status and distribution of pine snakes within their state. Our findings suggest that pine snakes have experienced a range reduction in practically every state in which they historically existed. Additionally, we suspect that this species has been extirpated from West Virginia and Virginia and could be on its way to extirpation in Kentucky.

Northern pine snakes are large (up to 2 m long), nonvenomous snakes that are adept at burrowing. They have a distinct light base color with varying amounts of dark blotching. In New Jersey, they are typically active from mid-April to mid-October and spend the remaining part of the year in underground hibernacula with other pine snakes and even with other snake species. Their ability to burrow aids in their pursuit of subterranean prey (such as moles, voles, and shrews) and also plays an essential role in nest excavation. Females typically produce clutches of 4-16 large eggs that are laid in underground burrows. Pine snakes have been documented to live for up to 23 years in the wild.

Like many rare species in New Jersey, habitat destruction and fragmentation are two of the leading causes for the decline of the pine snake. Even though large portions of their habitat in the Pinelands are under some level of protection,

there is still constant development pressure, particularly of the fringes of the Pinelands. Additionally, a number of State, County, and Toll roads bisect the Pinelands. Some, such as the Garden State Parkway, are so large and busy they almost certainly serve as complete barriers to movement, whereas others like State Route 72 or County Route 539 pose a different kind of threat. While these two-lane roads are not as wide as the Expressway and lack concrete barriers, they are main thoroughfares to the Jersey shore and are busiest during the months when pine snakes are most active. Given that, these roads tend to have high mortality rates since snakes attempt to cross them with greater frequency. It's our hope that projects like the wildlife crossings beneath the Atlantic City Expressway will become more commonplace and restore connectivity as the CHANJ initiative gains steam.



Photo: David Golden

Written by Bill Pitts, NJ Division of Fish and Wildlife