

Species: Bog Turtle (*Glyptemys muhlenbergii*)

Global Rank: G3

State Rank: S2

State Wildlife Action Plan: Immediate Concern and Pennsylvania Responsibility Species. (also PA Endangered and Federally Threatened)

Climate Change Vulnerability: Extremely Vulnerable

Confidence: Moderate

Habitat:

Bog turtles inhabit calcareous fens, sphagnum bogs, and wet, grassy pastures that are characterized by soft, muddy substrates and perennial groundwater seepage (NJDEP 2010). Bog turtle habitats are usually well-drained with very shallow surface waters (PNHP 2007). The species requires open areas for basking and nesting surrounded by early successional wetland vegetation. Bog turtle range extends from New York and Massachusetts to Tennessee and Georgia (NatureServe 2010). The bog turtle occurs in very low numbers in southeastern Pennsylvania (PNHP 2007).

Threats:

Spotty distribution and specialized habitat requirements make this species vulnerable to local extirpation. Decline is primarily due to loss, degradation, and fragmentation of habitat and excessive (and illegal) collecting for the pet trade. Bog turtle populations may suffer from low new recruitment due to predation by raccoon and trampling by humans walking through the habitat. The species is vulnerable to the usual problems associated with small population sizes.

Main Factors Contributing to Vulnerability Rank:

Distribution relative to urban and human impacted areas: Much of the current and potential habitat to the north is already heavily impacted by man thus limiting dispersal options.

Dispersal ability: Bog turtles tend to remain within suitable habitat patches, and rarely move more than 100m in a year. (NatureServe 2010).

Physical habitat specificity: habitat: The species is moderately to highly specialized in its habitat requirements.

Dependence on other species to generate habitat: Bog turtle habitat is created and altered largely by two species, beaver and man. Livestock grazing also helps to maintain vegetation succession and softens the ground thus creating favorable conditions for bog turtles (NJDEP 2010).

Migrations and movements: Species is non-migratory and populations do not regularly make substantial distributional shifts in response to changing environmental conditions.

Literature Cited:

Pennsylvania Natural Heritage Program. 2007. Fact Sheet – Bog Turtle.

NatureServe. 2010. NatureServe Central Databases. Arlington, Virginia, USA.

New Jersey Department of Environmental Protection – Division of Fish and Wildlife.
(accessed 3/2010). Fact Sheet – Bog turtle
<http://www.njfishandwildlife.com/ensp/pdf/end-thrtened/bogtrtl.pdf>