

Wetland Reserve Enhancement Program (WRE)

Pennsylvania NRCS

Bog Turtle Fact Sheet

Since 2012, NRCS has protected 83 bog turtle occupied wetlands by working with producers and private landowners. This is 45% of the United States Fish and Wildlife Service’s (USFWS) habitat recovery goal for delisting the bog turtle as a threatened species by 2050. Pennsylvania NRCS continues to offer WRE wetland easements to landowners who have bog turtles and their habitat on their property.

WHAT IS A BOG TURTLE?



*The bog turtle (*Glyptemys muhlenbergii*) is the most rare and smallest turtle existing in the United States. These turtles are currently listed as threatened and are only found in two populations, northeast and southeast, in the United States. The northeastern population of bog turtles exists in Connecticut, Massachusetts, New York, Pennsylvania, New Jersey, Delaware, and Maryland.*

Bog turtles can live up to 40-50 years and are easily identified by the two orange markings found on either side of their head. A fully grown, adult bog turtle will fit easily within a human hand.

WHAT IS BOG TURTLE HABITAT?



Bog turtles occur in wet meadows and bogs where tussock sedge and grasses dominate wetland soils. They require open meadow-type early successional wetland habitats, with deep, mucky soils that are fed by underground springs. Bog turtles only require small amounts of open water.

Bog turtles evolved by inhabiting abandoned, de-forested beaver meadows. Beavers built dams to impound water in forested areas, which flooded and killed the trees. When the beavers moved on, grassy wet meadows were left behind. These wet meadows became bog turtle habitat. Over time, as the beaver meadows were displaced by agriculture, the bog turtle was able to continue to inhabit grazed wetland areas.

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WHY ARE TURTLES THREATENED?

Unless disrupted by fire, beaver activity, grazing, or periodic wet years, bog turtle habitat becomes slowly invaded by woody vegetation. Once woody vegetation invades, the habitat undergoes a transition into closed-canopy, wooded swamplands that are uninhabitable for bog turtles.

Trees significantly degrade the hydrology of bog turtle wetlands making the muck soils, tussock sedges, and grasses disappear. Bog turtles are then unable to use the soils for hibernation, for foraging, and for escaping from predators. Turtle reproduction slows or stops. Many current turtle populations have not seen reproduction occur in many years.



HOW DOES WRE RESTORE BOG TURTLE HABITAT?

Through the WRE program, NRCS restores and maintains habitat for the bog turtle. NRCS restores bog turtle habitat by turning forested areas back into the wet meadows that bog turtles prefer. Restoration of bog turtle habitat focuses on removing woody vegetation to encourage the reemergence of grasses. The removal of trees helps increase hydrology to bring back and enhance the deep muck soils that the turtles require for hibernation, foraging, and predator escape. The habitat is also protected with a permanent easement.

Common restoration practices for bog turtle habitat restoration:

- *Tree and woody brush removal using cutting or herbicide*
- *Herbicide treatment of invasive and noxious species*
- *Grass and forb plantings*

To learn more or to locate your nearest Natural Resources Conservation Service Office, visit www.pa.nrcs.usda.gov