

Delaware Bay Estuary Project

Partnering to support bog turtle recovery in the Delaware River Watershed

The bog turtle is listed as threatened under the Endangered Species Act. Bog turtle populations face many challenges on the road to recovery, including poaching, habitat fragmentation, road kill, predation, disease, and especially habitat loss associated with development and agriculture, natural plant succession, invasive plant species, and altered hydrology. The bog turtle must also overcome challenges associated with its dependence on widely separated and small isolated wetlands.



Gary Peeples

Throughout the Delaware River Watershed, DBEP can work with landowners and partners to manage and restore the unique and vulnerable wetland habitat of bog turtle. We can provide funding and a variety of on-the-ground and technical forms of assistance.

Conservation measures for bog turtle habitat include working with partners to facilitate easement or fee title purchase of habitat or supporting monitoring and research efforts that will result in information helpful to decision makers managing the species and their habitat. Restoration measures vary but often entail reducing tree cover, managing invasive species, restoring hydrology, or decreasing sedimentation into wetlands.



Brian Marsh

The bog turtle (*Glyptemys muhlenbergii*) is North America's smallest turtle and one of its most threatened. An adult bog turtle is only about 4 inches long.

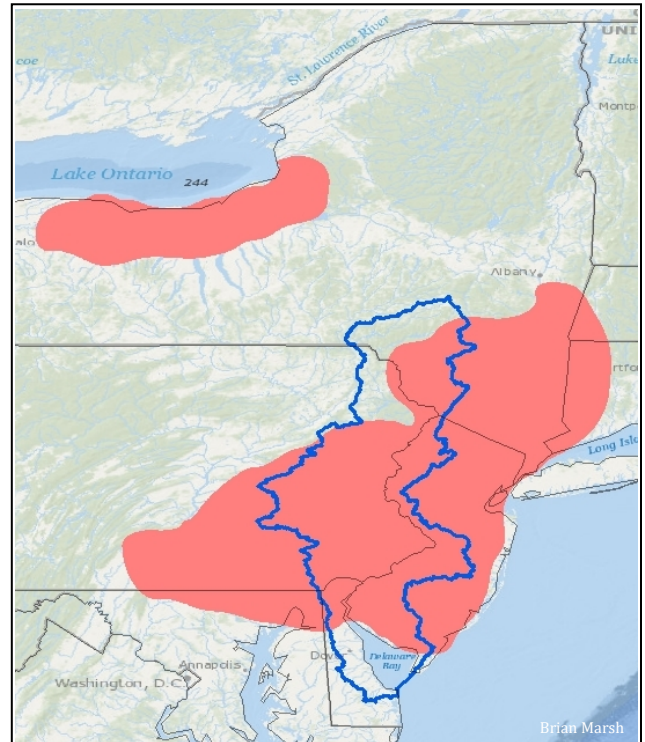
Bog turtles hibernate underground almost half the year. During their active months, the turtles are hard to see in the dense herbaceous vegetation and mucky soils that they prefer.

Bog turtles are omnivores eating a variety of foods opportunistically such as snails, seeds, insects, and worms.

Bog turtles may live for several decades but they don't start to reproduce for ten years and then only lay a few eggs a year that often are consumed by predators. Nests are laid in unshaded areas such as the tops of tussock sedge mounds. If the wetlands become shaded over time by the growth of the trees, the eggs will not develop.

The bog turtle relies on isolated wetlands that often need restoration to maintain successful breeding habitat.

Bog turtle habitat generally consists of bogs and fens with limited tree canopy and soft mucky soils. The turtles also rely on various microhabitats to support feeding, nesting, and hibernating. Bog turtle wetlands often have small rivulets. A variety of emergent herbaceous vegetation often dominates these wetlands such as tussock sedge.



The range of the northern population of bog turtle overlaps extensively with the Delaware River Watershed making the conservation of this species important for the DBEP.

The Delaware Bay Estuary Project is part of the Coastal Program, a habitat conservation program of the U.S. Fish and Wildlife Service that focuses on conserving the ecological integrity of beaches, bays, estuaries, and coastal watersheds. We work through voluntary partnerships with a variety of public and private entities, such as private landowners, land trusts, municipalities, states, and other federal agencies, to enhance, restore, conserve, study, and monitor habitat for key federal trust wildlife resources in the Delaware River and Delmarva Peninsula ecosystems.

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