

Blanding's Turtle

Conservation in the Northeast

The Blanding's turtle (*Emydoidea blandingii*) is a medium-sized, semi-aquatic freshwater turtle that inhabits wetlands in parts of the upper Midwest, New York, New England, and southern Canada with remnant populations in Nova Scotia. While populations throughout the Midwest are somewhat contiguous, populations in the Northeast and Nova Scotia are fragmented.

Blanding's turtles have life history characteristics that are comparable with sea turtles and tortoises. They can live to 70 years of age, tend to reach sexual maturity at more than 20 years of age and have low reproductive potential. As a result, populations of Blanding's turtles are extremely sensitive to adult mortality. Throughout the Northeast, populations appear to be declining.

Blanding's turtles in the Northeast
In New York and New England, Blanding's turtles use vernal pool habitats for breeding and feeding. Compared to other aquatic turtles, the Blanding's turtle is known to make large land movements in search of suitable vernal pool habitats, often traveling more than a mile. Because of these movements, Blanding's turtles require larger landscapes than many other turtle species.

In the Northeast, these journeys often require these turtles to cross roads, where they risk mortality. Protection of individual wetland sites has been difficult enough, but large-scale landscape conservation is even more daunting, especially in the heavily developed northeastern U.S.

The Blanding's turtle is listed as a Species of Greatest Conservation Need in all five Northeast states where it occurs. In 2007, the U.S. Fish and Wildlife Service, in coordination



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The Blanding's turtle has a high-domed, dark top shell—known as a carapace—with yellow flecking. This turtle can be identified by its long yellow throat and chin.

with several conservation partners, assisted in the preparation of a status assessment that concluded that Northeast populations may be in serious decline.

Though the species is not currently federally listed, the Service will continue to review its status closely and is dedicated to conservation work for the turtle.

Two of the largest populations of Blanding's turtles in the Northeast exist at Oxbow National Wildlife Refuge (NWR) and Great Meadows NWR in Massachusetts. Biologists are partnering with researchers to establish another population at Assabet River NWR, which is located between the other two population sites.

Conserving Blanding's turtles in the Northeast Region

New England Field Office

■ Service biologists worked through the Science Support Partnership joint grant with U.S. Geological Survey to help develop and conduct a status assessment of Blanding's turtles in the Northeast.

- In an effort to reduce road mortality, biologists are also working with various state transportation departments to install road signs warning motorists of Blanding's turtles in the area.
- Thanks to a grant dedicated to the conservation of Blanding's turtles and wetlands in the Northeast, several states are partnering to develop a regional conservation plan, help identify genetic variation among these turtles, develop long-term



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This species makes large overland movements to wetland habitats with shallow water.

monitoring protocols for the turtles and their habitats, create at least five new nesting areas, and install turtle crossing signs.

Eastern Massachusetts National Wildlife Refuge Complex

Great Meadows National Wildlife Refuge

- Biologists are using radio telemetry to monitor the health and seasonal movements of Blanding's turtles.

Oxbow National Wildlife Refuge

- Each year starting in May, biologists and partners conduct nighttime surveys of Blanding's turtles when they move from wetlands to nesting areas.
- Service biologists are using an experimental headstarting program to establish a new population of Blanding's turtles on refuge lands. This program involves collecting eggs, hatching them in captivity and releasing them in the wild when the turtles are large enough to survive most predation.
 - Bristol County Agricultural School sophomores partnered with species experts to raise Blanding's turtles and released them in late spring into wetland habitat at Assabet.
- The refuge continues to work with the University of Massachusetts Amherst to test road tunnels.
 - A graduate student, building on previous work, is examining the success of different methods to



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A biologist looks for Blanding's turtles in a net.

help turtles safely cross roads; the methods include fencing, paths constructed underneath roads, and tunnels with various openings, light and lengths. The result of this research project will help guide management and, hopefully, road design.

Assabet River National Wildlife Refuge

- Biologists are working with Great Meadows NWR to capture Blanding's turtles to monitor population health.
- Refuge staff worked with the Thoreau School in Concord in April 2011 to host a turtle night that featured turtle exhibits and

talks from turtle researchers and conservationists. This partnership is increasing community awareness and involvement in turtle conservation.

- Visit <http://room305Blanding'sturtles.wordpress.com/> to read the class blog on Blanding's turtles.

Through these efforts, the Service and its conservation partners are taking proactive measures to conserve Blanding's turtles and hope that successful efforts will lead to improvement in populations in the Northeast.

U.S. Fish & Wildlife Service
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Bristol County Agricultural School students release Blanding's turtles that they raised with the help of U.S. Fish and Wildlife Service biologists.