

Searching for a new ride?



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State's growth leaves turtle little room to roam

Blanding's needs extra protection, experts say

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Imagine that you move at a pace close to a crawl. You travel between wetlands, many of them thick with vegetation, and vernal pools. When it comes time to nest, you journey upland - sometimes walking in excess of a kilometer - in search of well-drained, bare ground. With your eggs safe in their nests (which a raccoon or other predator may raid), you travel back to wetlands. Depending on your location, that trip may require you to cross traffic-heavy roads.

Such is the life of a Blanding's turtle.

These days, life is tough for the species, which Fish and Game officials recently proposed adding to the state's endangered wildlife list. Currently, the turtle is considered a "species of special concern" in the state. Possessing, harming, selling or importing the species is illegal.

This is "a critical juncture for the Blanding's turtle," said Mike Marchand, a Fish and Game biologist who studies the turtles. "The actions we take in the next 10 to 15 years will probably determine the fate of the Blanding's turtle over the next 50 to 100 years." Placing them on the endangered list, he said, would make the turtles a conservation priority.

The endangered list is made up of native species whose survival in New Hampshire is at risk due to loss of habitat, disease and other factors. People are barred from harming, harassing or killing creatures that are on the endangered or threatened wildlife lists. If a threatened or endangered species would be affected by a proposed development, wildlife officials can request changes to the project, according to John Kanter, Fish and Game's nongame and endangered wildlife program coordinator. Wildlife officials also take a close look at how to stave off species' declines.

In part, the Blanding's turtle's story speaks to a changing New Hampshire.

"We just are losing contiguous tracts of complex habitat," said David Carroll, a naturalist and recent recipient of a MacArthur Foundation "genius grant." He has studied turtles near his Warner home for decades. Blanding's turtles, Carroll said, "require a mosaic of wetland and riparian and upland habitat."

The turtles, distinguishable by the yellow coloring on the undersides of their necks, have the poor fortune to make their homes in the rapidly developing southeastern portion of the state. (They also extend to the Concord area.) "As more roads are created and more habitat is lost, those animals must travel to the habitat they require," said Matt Tarr, a wildlife specialist at the University of New Hampshire Cooperative Extension.

And those roads prove treacherous.

Granite curbing can keep turtles from climbing off the road, trapping them on roadways. Marchand has the carcass of a hatchling Blanding's turtle, which was killed after failing to scale a road's curbing.

"Sometimes granite curbing is appropriate," Marchand said, referring to safety concerns. But for rural roads, sloped curbing would aid turtles' crossing.

Adult Blanding's turtles also fall victim to vehicles. One female turtle, found on a busy, two-lane highway in the state, has been undergoing rehabilitation for two years. The accident broke sections of her shell. After the injury, there were fly eggs blanketing the exposed tissue. Today, she continues to recover. But her injury has meant that, for the time being, New Hampshire has had one fewer reproductive-age female Blanding's turtle.



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The Blanding's turtle is distinguishable by the yellow coloring on the underside of its neck.

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Big travelers

Blanding's turtles are all the more vulnerable because of their affinity for travel. In their quest for various types of habitats, Blanding's turtles travel farther than many other turtle species, scientists said.

Taken individually, each of the habitats the turtles rely on isn't rare. In the spring, they might move from their wetland homes to vernal pools, where they forage and feed on insects and other creatures in temporary pools of water, Marchand said.

Adult females will go upland to lay their eggs, generally between late May and early July. Some Blanding's turtles, Marchand said, "go more than one kilometer from wetlands to lay eggs." In the heat of the summer, the turtles stay "hunkered into where they can keep cool," Marchand said.

But if the individual habitats Blanding's turtles require aren't rare, the combination of them is.

"There aren't too many places in southern New Hampshire where you can go two kilometers and not cross any roads," Marchand said. Just protecting wetlands "is not going to do much for them," Marchand said. "They really need large chunks of habitat that have a mosaic of uplands and wetlands."

Time to mature

In part, the turtles' woes are rooted in their lifespan.

Blanding's turtles can live for up to almost 80 years in the wild. A female can take up to two decades to reach sexual maturity. By the time a female is ready to reproduce, its population "has a 15-year investment in that turtle," Carroll said. "That turtle goes out on her first time to nest and is road-killed: That is . . . a key consideration."

Young turtles face numerous predators. Raccoons raid turtle nests. Hatchlings are snacks for a wide range of creatures, including bullfrogs and herons, Marchand said.

But it's the loss of adult turtles that can prove devastating for a Blanding's population, scientists said. "When you have a species that takes so long to reach sexual maturity, the loss of just one or two turtles from a local population can actually make a big difference in whether that population can be successful," Tarr said.

Although cars are the primary threat to Blanding's turtles, they also face risks from predators.

Some Blanding's turtles choose to make their nests on residential lawns, leaving them vulnerable to mowing equipment, according to the state's Wildlife Action Plan. Some choose the shoulders of roads for nest sites, increasing the exposure of adult and hatchling turtles to vehicles and road repair crews.

Occasionally, people remove turtles from the wild to keep them as pets, although Blanding's turtles haven't suffered as much as some other species from illegal collection, Carroll said.

An adult Blanding's turtle grows to about 7 inches to 9 inches long and has a yellow throat and chin. It's unclear how many Blanding's turtles live in New Hampshire, but sightings are fairly rare.

There are seven turtle species considered native to New Hampshire, according to Fish and Game. In the state's Wildlife Action Plan, four of the seven species - the Blanding's turtle, spotted turtle, wood turtle and box turtle - are described as species in great need of conservation. Fish and Game officials have proposed adding the spotted turtle to the state's threatened wildlife list.

Looking for good homes

Efforts are under way to boost the Blanding's turtle. In 2004, wildlife officials created a Northeast Blanding's Turtle Working Group, and they've worked to identify potential Blanding's turtle habitat, Marchand said. They live in parts of New England, New York and Nova Scotia, and from southern Ontario south to Wisconsin, Michigan, Minnesota, Ohio, Indiana, Illinois, Iowa and Nebraska, according to the Wildlife Action Plan.

The health of the Blanding's turtle isn't simply a story of the hard-shelled creature. A thriving Blanding's turtle population, experts said, means other flourishing species. "If the status of their colony or population is good, you can be sure that indicates a healthy and diverse habitat," Carroll said, referring to Blanding's, wood and spotted turtles.

State regulations don't suffice to protect species that require large wetlands systems, according to the Wildlife Action Plan. In the case of the Blanding's turtle, preservation of small pockets of land isn't enough.

Now, officials hope to identify the best spots for Blanding's turtles and distribute that information to preservation groups and landowners, Marchand said.

Whatever changes are made to the Blanding's turtle's habitat, some of the state's Blanding's turtles - which can rival humans in terms of lifespan - have already likely witnessed a period of rapid development.

"Just think," Carroll said, "in one Blanding's turtle's lifetime, the changes that have been effected around them."

(For more information about New Hampshire turtles, go to WildNH.com. The website includes instructions for handling injured turtles. To report sightings of turtles, e-mail your observations to raarp@wildlife.nh.gov, or go to wildlife.state.nh.us/Wildlife/Nongame/reptiles_amphibians.htm for more information.)

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