

WILDLINES

New Hampshire Fish and Game's quarterly newsletter of the Nongame and Endangered Wildlife Program



Collaborative Effort to

PROTECT WILDLIFE MOVEMENT

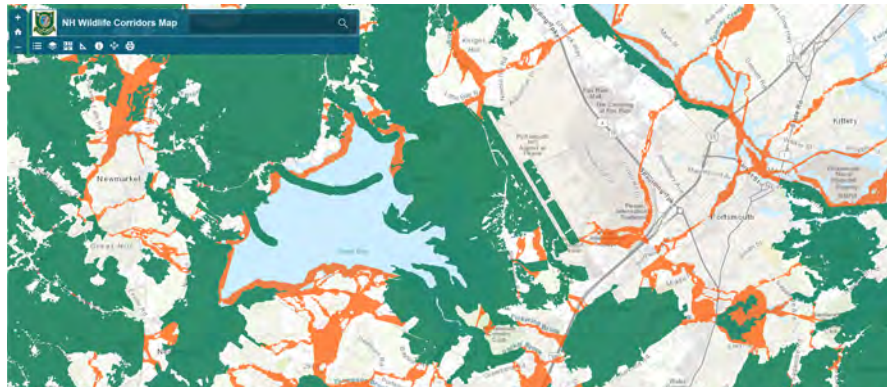
Big questions surround the future of conservation, including how to prepare for new and worsening threats such as climate change, how to protect increasingly vulnerable wildlife, and how to involve a diversity of partners to accomplish long-term goals. This year, the conservation community has gained another tool: the Wildlife Corridor Maps. These maps were developed by GIS Coordinator Katie Callahan at NH Fish and Game along with a panel of biologists and partners.

A corridor is a pathway that joins two or more areas of wildlife habitat, allowing for fish passage or wildlife movement from one area to another. Wildlife is at risk of road mortality and barriers to dispersal—particularly wildlife that is long-lived and slow-moving, such as turtles and snakes. Many other species, such as bobcats and marten, roam long distances. “The strength of the model is that it captures dispersal behavior of a wide range of different species,” explained Callahan. “Habitat generalists, habitat specialists, area-sensitive (those that require large tracts of habitat), and barrier-sensitive species were all included.”

“Wildlife has always needed room to roam, but as climate change progresses, the conservation of corridors that support wildlife movement becomes ever more important,” said Brett Amy Thelen of the Harris Center for Conservation, a Hancock-based partner that strategically protects contiguous blocks of habitat. “This map is one tool to help get us there. Habitat connectivity has long been a core value of the Harris Center’s land protection work, and these maps will help us better prioritize new properties for inclusion in our SuperSanctuary of connected, protected lands.” The Wildlife Corridor Maps are now available to conservation planners, landowners, land trusts, researchers, and others at nh-wildlife-corridors-nhgranithub.hub.arcgis.com.



The passage of a slow-moving box turtle is blocked by traditional roadside curbing.



Wildlife Corridor Maps delineate wildlife corridors (orange) and prioritized habitat blocks (green).

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MINK FROG

(Lithobates septentrionalis)



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The darkly mottled mink frog prefers coldwater lakes and ponds, inhabiting these weedy shorelines from north of New Hampshire's White Mountains into other northern U.S. states and Canada. They are named after the musty odor they emit when in danger—often compared with the smell of rotting onions. Adult frogs are mostly green with irregular brown spots, but males can have a yellow-colored throat patch, while the throats of female mink frogs tend to be paler.

Habitat and Distribution: Coldwater lakes and ponds, northern swamps and wetlands with open water, and peatlands.

Threats:

- Contaminants from pollution and runoff.
- Amphibian diseases such as chytrid and ranavirus.
- Warming temperatures and increased droughts due to climate change, since mink frogs are dependent upon cold, oxygen-rich waters.

Conservation Actions:

- Document mink frogs, which are under-recorded due to their unique habitat preferences.
- Learn the unique call of the mink frog—an audio clip is available on the NH Fish and Game website at wildnh.com/wildlife/profiles/mink-frog.html.
- Sightings of mink frogs should be reported through Wildlife Sightings at nhwildlifesightings.unh.edu.

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CONSERVING BL

Ten Years in Review

The Nongame and Endangered Wildlife Program reflects on a decade of Blanding's turtle research and conservation as the funding for the latest round of effort

concludes. This major multi-state project, which began as a group of biologists with many questions about this rare species, has become a model for other rare species—focused working groups.

There are numerous



Printouts, Websites, and Resources for

IDENTIFYING NATURE'S TREASURES

The transition from winter to spring leads to the emergence and arrival of many animals, which makes it a busy time for Nongame Program biologists conducting surveys of the state's rare species, including: box, spotted, and wood turtles; black racers and hognose snakes; and others. "Early

observations of these species can lead to insights on hibernation spots or critical spring move-out habitats that can become targets for conservation," said Nongame Program Biologist Brendan Clifford.

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Wood frogs depend on vernal pools for breeding.


BLANDING'S TURTLES

accomplishments to celebrate, perhaps most importantly the discovery that over 40% of the region's Blanding's turtle habitat is held in New Hampshire's shrub wetlands and surrounding uplands, a previously unknown fact that carries with it a great deal of responsibility for conserving this species.

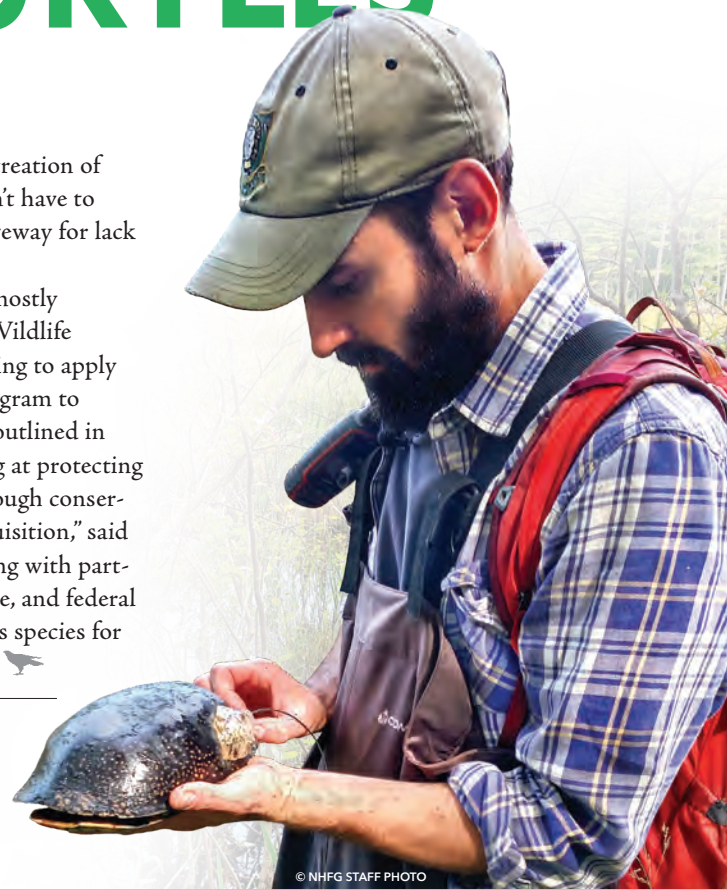
Five Northeast states now have comprehensive management plans for the long-term conservation of these long-lived turtles. Within New Hampshire, nine priority areas have been established with cooperative plans for each. A significant accomplishment was the identification of nesting limitations, particularly at sites where adequate sandy, sunny areas were undersized or located far from wetlands.

"With the priority areas defined, the next step was protecting thousands of acres for Blanding's and spotted turtles," explained Nongame Program Biologist Joshua Megyesy. "Many partners have been engaged

in that effort, including in the creation of nesting areas where turtles won't have to cross roadways or nest in a driveway for lack of a safer option."

These efforts were funded mostly by Federal Competitive State Wildlife Grants, and biologists are looking to apply for another grant from this program to continue conservation actions outlined in each site plan. "We'll be looking at protecting additional important areas through conservation easements and land acquisition," said Megyesy, "as well as collaborating with partners at the nonprofit, local, state, and federal levels to assist in protecting this species for the next decade and beyond." 

Fish and Game Biologist Josh Megyesy locates a Blanding's turtle fitted with a radio transmitter.



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Volunteer with the BUTTERFLY MONITORING NETWORK

Over 130 species of butterflies have been documented in New Hampshire, according to a report compiled by NH Audubon in 2013. The abundance of each butterfly species may fluctuate over time for several reasons. Insects face complex threats ranging from the loss of wildflower and host-plant habitat to impacts of climate change and the use of pesticides. As the climate in New Hampshire warms, new species may arrive in the state if conditions shift to favor their preferred habitat. Volunteers with the Butterfly Monitoring Network in New Hampshire will be at the forefront of providing data to help identify changes in species distribution for the state.

Numerous hosts are partnering with NH Fish and Game to offer workshops on butterfly identification and reporting as part of this project of collecting long-term butterfly data. The training is a great starting point for those who need practice identifying the different flying insects seen in backyards, parks, and woodlands. An




Red admiral butterfly

example of this training has been launched by the Harris Center for Conservation as the SuperSanctuary Butterfly Club, which will have monthly Zoom meetings focused on the identification and habitat preferences of local butterflies.

"We're working to make this educational experience repeatable with other conservation groups, equipping their local community members with the skills needed to collect data," said Nongame Program Wildlife

Diversity Biologist Heidi Holman. Pollinator Pathways NH and the Lake Sunapee Butterfly Club are also involved in this effort. By completing the program, volunteers will be introduced to over 50 butterfly species and walk away prepared to conduct a one-day team survey. This point count will be registered with the North American Butterfly Association and contribute to a national dataset available to all researchers in North America interested in butterflies.

In addition to these trainings with butterfly clubs, half-day sessions will be offered across the state with a focus on New Hampshire's twenty most common butterflies. This allows volunteers seeking a lesser time commitment to utilize the websites and apps iNaturalist and eButterfly to add observations made in a yard or at a local conservation parcel. Workshop dates and other information will be available on the NH Fish and Game website throughout the season at wildnh.com/surveys/butterfly-monitoring-survey.html. 



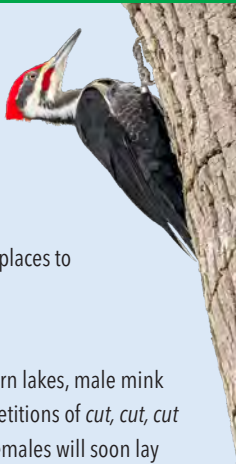
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APRIL

- Woodpeckers begin excavating holes in standing dead trees (called snags) to start the breeding season. These excavated cavities serve as places to rest and nest.



MAY

- While floating on northern lakes, male mink frogs will call out quick repetitions of *cut, cut, cut* sounds to attract a mate. Females will soon lay clusters of 500-4,000 eggs.

JUNE

- Many animals, including small mammals such as mice, chipmunks, and rabbits, are eating the twigs and buds of highbush blueberry (*Vaccinium corymbosum*), which begins fruiting this month.


TREASURES *continued from page 2*

Biologists also rely on observations from the public in documenting these important locations. In fact, many of the populations that have been targeted for surveys were found through reports to NHFG's Wildlife Sightings website at nhwildlifesightings.unh.edu.

"The amphibian migration from winter hibernacula to springtime habitats occurs during warm, rainy nights in April, and documenting these events can help identify road-crossing hotspots and indicate the presence of nearby vernal pools for those species that are obligate vernal pool breeders," said Clifford. As you're enjoying the outdoors, remember to both look and listen; many animals give away their location by sound, such as the *quack quack* calls of the vernal pool-dwelling wood frog, which requires these water sources for breeding. "These shallow, temporary ponds also serve as feeding areas for other wildlife, including species such as Blanding's and spotted turtles," said Clifford. Conserving vernal pools is a priority for conservation groups, and resources for documentation can be found at wildnh.com/nongame/reptiles-amphibians.html.

The Nongame and Endangered Wildlife

Program provides tools to help you identify, document, and report animal observations. Species identification cards for various invertebrates, amphibians, reptiles, birds, and some select habitats such as vernal pools or rivers and streams are available for download as convenient, fun educational tools for both kids and adults at wildnh.com/nongame/cards.html.

Biologists are busy this spring observing and documenting all the species that begin their annual life cycle here in the Granite State. "Keep in mind the importance of sharing your observations with the Nongame and Endangered Wildlife Program," reminded Clifford, "so that we can continue to populate our species database and better focus our conservation efforts." 



Is this turtle lost? Absolutely not! The intelligent "snapper" may travel extensively over land to a preferred nesting spot or particular waterbody, being adept at navigating and keeping routines. Snapping turtles of any size can look intimidating, but they aren't aggressive. Lacking the ability to pull their vulnerable limbs into their shell for protection, their snap when threatened is their best line of defense. They're not ravenous predators, but instead spend most days in water scavenging for food. A human's bite force is actually two times greater than a snapping turtle's! If you see a snapping turtle, just let it continue on its way or help it avoid traffic if it is crossing a road. With our help, these ancient creatures can continue to fulfill their important role in keeping our freshwater ecosystems clean and balanced.