

NEW ENGLAND COTTONTAIL NEWSLETTER



FALL 2024

Welcome to the New England Cottontail Newsletter! This publication was produced by members of the New England Cottontail Conservation Initiative. We formed in 2009 as a collaboration between state and federal natural resource agencies, non-governmental organizations, land trusts, universities, and private landowners, with a goal of conserving the New England cottontail throughout the species' current range. From conservation rearing, to research and monitoring, to creating habitat, we are working hard to make sure New England's native cottontail rabbit can thrive. In this edition, we will share with you work done by private landowners, volunteers, and graduate students that contributes to carrying out the **Conservation Strategy for the New England Cottontail (*Sylvilagus transitionalis*)**.



A radio collared New England cottontail released on private property in New Hampshire./M. Piché

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In the Hands of Private Lands

Marianne Piché
Habitat Biologist
Massachusetts Division of Fisheries and Wildlife

Private landowners from New England and eastern New York contribute significantly to conserving the New England cottontail on their properties. In the six states focused on New England cottontail conservation, at least 75 percent of holdings are in private, land trust, conservation organization, municipal, or tribal ownership—in other words, in private hands.

While the U.S. Fish and Wildlife Service and state wildlife agencies have statutory responsibility to protect and conserve native plants and animals, the overall percentage of land that these agencies own in the Northeast is less than that of private landowners. For this reason, conservationists working to help the New England cottontail work hard to create and advance partnerships with private landowners.

In 2011 when the Conservation Strategy for the New England Cottontail was being written, the New England Cottontail Technical Committee (a team of biologists knowledgeable about the species) determined that creating and refreshing habitat would be a key part of New England cottontail conservation, and they set acreage goals that needed to be met by 2030.

The goal for the U.S. Fish and Wildlife Service is 27,000 acres rangewide. The combined goal for the six states (Maine, New Hampshire, Massachusetts, Connecticut, Rhode Island, and New York) is 43,940 acres. To reach these objectives, natural resource professionals plan and carry out habitat projects that benefit New England cottontails, such as timber harvesting, shrub planting, and prescribed burning to enhance or create young forest and shrubland habitats. The Technical Committee and both state and federal agencies also actively engage and encourage private landowners to make important habitat.



Timber Harvester Workshop at the Berkshire Natural Resources Council Clam River Reserve in the Southern Berkshires where a habitat project was completed./M. Piché



In the Hands of Private Lands (continued)

From 2011 through 2023, an overall total of 17,516 acres of habitat have been managed to benefit New England cottontails. So far, private lands account for 9,653 acres, with an additional 7,863 acres managed on state and federal lands. Within the Great Thicket National Wildlife Refuge, which was established in 2016, about 400 acres of additional land has been protected.

Voluntary contributions made by private landowners go beyond managing habitat. Conservation-minded citizens and organizations let field biologists access lands where cottontails live, both to monitor populations and to conduct research projects. Some individuals and groups have volunteered for habitat workdays or assisted in monitoring. Others have held habitat walks to demonstrate management practices conducted on their property or hosted timber harvester workshops focused on demonstrating techniques to create and improve young forest and shrubland. Some landowners have given permission to have New England cottontails released on their properties to boost the genetic diversity of wild populations, or have allowed rabbits to be live-trapped so they can be added to conservation-breeding programs in regional zoos.

All of these efforts are aimed at helping New England cottontails, but they also benefit other animals and even some plants. In early 2024, the New England Cottontail Technical Committee expressed their gratitude to more than 200 private landowners with a thank-you letter and a copy of the book [Under Cover: Wildlife of Shrublands and Young Forest](#) by Meghan Gilbert of the Wildlife Management Institute. The book contains detailed information, photographs, and maps for 65 birds, mammals, and reptiles that depend on young forest or shrubland for all or part of their annual or life cycles – all animals that share habitat created or renewed for New England cottontails.



Wendi Weber, U.S. Fish and Wildlife Service (third from the left), visits a habitat project on Cape Cod at the Carl Monge Sanctuary with several board members from the Orenda Wildlife Land Trust./M. Piché



Eastern Towhees and New England Cottontails: Management for One Benefits Both

Megan Gray
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Young forests are crucial not only for New England cottontails but also for many birds that rely on this uncommon habitat for food and cover at certain times of the year. Among these species, the eastern towhee (*Pipilo erythrophthalmus*) is one of the more recognizable in the Northeast, breeding throughout New England and overwintering in some parts of the region. Towhees, like many early successional species, have experienced a population decline (estimated at 1.4 percent per year, according to the North American Breeding Bird Survey) due to the maturing of young forests and the accompanying loss of young forest habitat. So when habitat managers create young forest for New England cottontails, they also provide essential breeding and wintering habitats for eastern towhees.

The eastern towhee's song, a musical "drink-your-tea!" often resonates through the forest during the spring and summer. Males will sing high on a perch to establish their territory in the early spring, often entering disputes over territory boundaries and over females. Their call note, a sharp "chewink," is also quite distinctive.

Male towhees are characterized by their black upperparts, white undersides, and rust-colored flanks. Females have a similar pattern but are chocolate brown where the males are black. Towhees are large sparrows that are omnivorous, with a diet that changes with the season of year, including insects, seeds, and fruits. These birds commonly forage in leaf litter, using a distinctive two-footed scratching method to expose invertebrates and other food items.



Male eastern towhee./M. Gray

Eastern Towhees and New England Cottontail (continued)

In the breeding season, female towhees build open-cup nests, typically on the ground but occasionally in shrubs or trees. They often hide their nests from predators by siting them under tangles of shrubs and thick vegetation. The female incubates eggs for around 12 days, and both male and female feed the nestlings until they fledge, around 10 to 12 days later. Towhees can have two or even three broods a year, and both parents continue caring for the young until they are fully independent, around 20 days after fledging. Every life stage of the towhee, from egg to independent fledgling, occurs in young forests and adjacent edge habitats.



Female eastern towhee on her nest./M. Gray

By harvesting trees in mature forests and allowing new growth to flourish, land managers can create dense, shrubby habitat that both eastern towhees and New England cottontails need. This approach benefits a host of other bird species, including the prairie warbler, eastern whip-poor-will, and American woodcock, all of which are experiencing population declines caused by habitat loss. Ongoing research at the University of Rhode Island, in collaboration with the Rhode Island Department of Environmental Management, is investigating how varying levels of quality of young forest affect songbird density, nest success, and nestling growth. Young forests are vital for these and many other species, providing the food and cover they need to thrive.

Diet of the Eastern Coyote on the Cape Cod National Seashore: A Plot Twist!

Carolyn Hanrahan
M. S. Candidate Student
University of Vermont

After I presented research results at the Northeast Association for Fish and Wildlife Agencies Conference in April 2024, Marianne Piché, a member of the New England Cottontail Technical Committee, contacted me. Marianne was fascinated by some of our illuminating and unlikely findings. Read on to discover more about how our research on coyotes could have even broader and more fascinating implications for the New England cottontail.



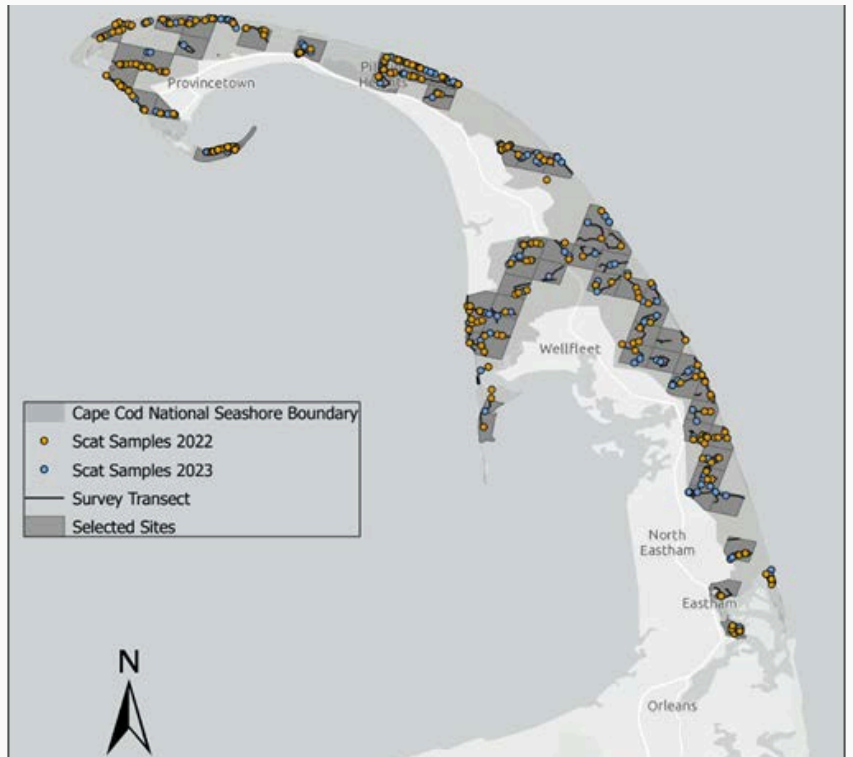
Coyote on Cape Cod./S. Devlin

Some Background

The eastern coyote (*Canis latrans*) was verified on Cape Cod in the 1970s after the species expanded its range across much of North America. This highly adaptable and opportunistic predator has proven resilient towards human landscape modification and climate change, even flourishing in human-dominated urban environments.

My master's thesis research aimed to determine how the relatively new arrival of the coyote on Cape Cod impacts the Cape's greater ecosystem, and how the diet choices of this clever canid could unveil relationships between a myriad of other organisms that reside in this changing ecosystem.

The Cape Cod National Seashore is home to two threatened shorebird species: the least tern (*Sternula antillarum*) and the piping plover (*Charadrius melodus*). Both rely on vital nesting habitat along the national seashore. Our collaborators with the National Parks Service raised an important question: Are coyotes posing a threat to these shorebird populations on Cape Cod through predation?



Map showing the locations of coyote scat samples collected along transects within the Cape Cod National Seashore in 2022 and 2023.

Diet of the Eastern Coyote on the Cape Cod National Seashore (continued)

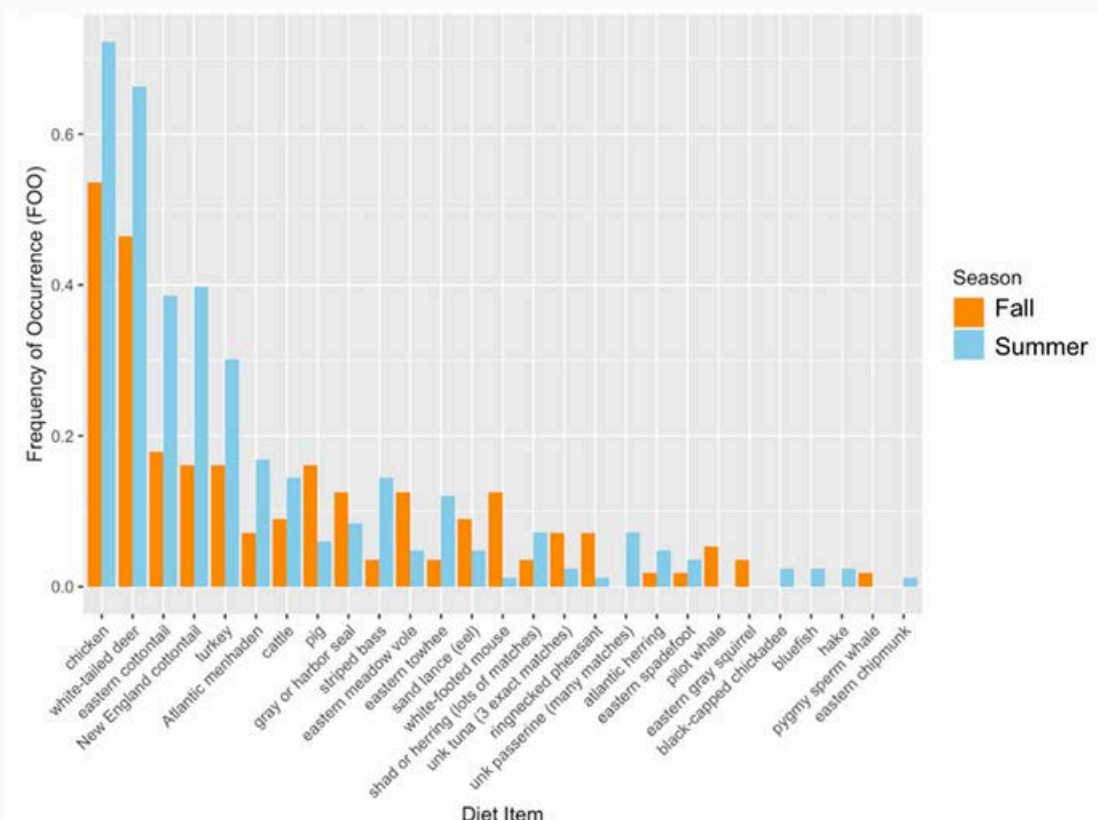
Our field work

During fall 2022 and summer 2023, we conducted field work on the National Seashore, walking transects (straight lines through areas of likely habitat) and collecting coyote feces, generally called “scat.” These samples were sent to the Mammal Ecology and Conservation Unit at the University of California, Davis for metabarcoding analysis, a relatively new genetic technique for accurately classifying diet. In total, 140 samples were analyzed for diet, from 91 distinct individual coyotes.

Our findings

When our results came back, we were surprised at what we found. Despite public perception that coyotes pose a considerable threat to nesting shorebirds, no traces of piping plover or least tern were found in the coyotes’ scat. However, the testing identified something else: New England cottontail. We discovered their DNA present in 15-20 percent of fall samples, and a staggering 40 percent of summer samples.

With these new findings, we now have a glimpse into where NEC monitoring efforts could be directed next. I hope to continue collaborating with Marianne and other members of the New England Cottontail Technical Committee to determine areas where we could conduct cottontail surveys based on our coyote scat data. I am glad to see how my research extends beyond coyotes and shorebirds and into the greater conservation realm, and I am excited to see what else we may uncover as we continue our studies.



Graph showing the frequency of 27 fall and summer food items detected in coyote scat, with the highest four being domestic chicken, white-tailed deer, eastern cottontail, and New England cottontail.



Kits Niche: How is a New England Cottontail Like an Umbrella?

Mary Gannon

Wildlife Outreach Coordinator

Rhode Island Department of Environmental Management, Division of Fish and Wildlife

New England cottontails love young forest habitat. Tiny trees grow close together, and briars create tangled thickets. It looks messy and maybe not so fun to walk through for us humans. But the rabbits love it because it's the perfect place to hide from a predator!

There is also lots of food in a young forest, like tender tree saplings, grasses, wildflowers, and fruits from different shrubs. Plenty for a bunny to munch on for lunch!

LOTS of other animals also love young forest habitat. They feel safe under the cover of small trees and thickets. They also love to feast on berries, sip nectar from flowers, munch on grasses, and hunt for insects.

When we create young forest habitat, we think a lot about the New England cottontail because it's a rare species in New England. But by helping this bunny, we're helping many other critters too. That's why the New England cottontail is called an "umbrella species." When you make cottontail habitat, you make habitat for lots of other animals. It's like the cottontail is holding a big umbrella, and all the other critters are standing under it too! Try the word scramble on the next page to see who else is under the umbrella.



Kits Niche

Can you unscramble these words to reveal the names of some other young forest species? Then try to match the name with the photo!

- TEASREN WHITEOE
- OXB RTULET
- MNCMOO TNREAES UEMPLBB EBE
- TCOBAB
- AOTPEOSFD ADTO
- CROMNAH YFTLTETR
- LELWOY BLRERAW

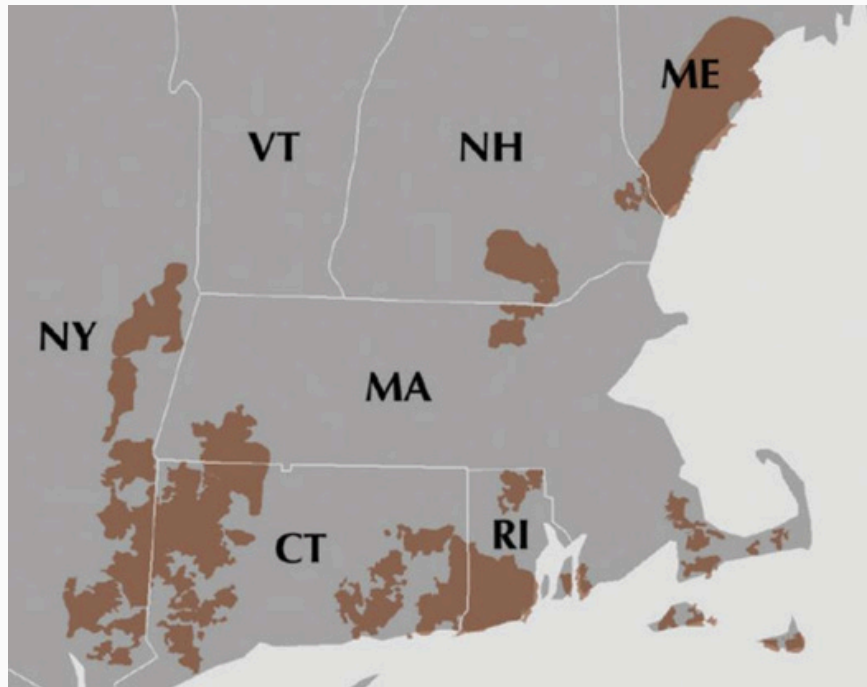


- ANSWERS
- Eastern Towhee
 - Box turtle
 - Common Eastern Bumble Bee
 - Bobcat
 - Spadefoot Toad
 - Monarch Butterfly
 - Yellow warbler

Learn More and Join the Effort!

Visit our website explaining how we are working together for the New England cottontail:
<https://youngforest.org/wildlife/new-england-cottontail>

New England Cottontail Focal Areas



If you want to learn more about New England cottontail conservation efforts in your state's focal areas, refer to the contacts below:

State Wildlife Agencies:

Connecticut: deep.ctwildlife@ct.gov

860-424-3011

Maine: info.ifw@maine.gov

207-287-8000

New York: wildlife@dec.ny.gov

518-402-8883

Massachusetts: Mass.Wildlife@mass.gov

508-389-6300

New Hampshire: wildlife@wildlife.nh.gov

603-271-2461

Rhode Island: DEM.DFW@dem.ri.gov

401-789-0281

Funding Resources:

US Fish and Wildlife Service

Partners for Fish and Wildlife Program

newengland@fws.gov

603-223-2541

US Department of Agriculture

Natural Resources Conservation Service

Environmental Quality Incentives Program

www.nrcs.usda.gov