

NEW ENGLAND COTTONTAIL NEWSLETTER



SPRING 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 January 2024 our annual Technical Committee meeting took place in Maine. In this edition, we will share with you the work we do in carrying out the **Conservation Strategy for the New England Cottontail (*Sylvilagus transitionalis*)** there.



New England cottontails from island refuges are released in the spring onto mainland patches for population augmentation and reintroduction/MDIFW - L. Kintz

Contents

- [Welcome](#)
- [First Steps Toward New England Cottontail Recovery in Maine](#)
- [Bipartisan Infrastructure Law Funding to Create and Enhance Habitat for New England Cottontails in Maine](#)
- [Kits Niche](#)
- [Get Involved](#)

First Steps Toward New England Cottontail Recovery in Maine

Cory Stearns

Small Mammal Biologist

Wildlife Diversity Section, Maine Department of Inland Fisheries and Wildlife

When their population peaked in the 1960s, New England cottontails (NEC) were common in Maine. They ranged over more than 3,600 square miles, including as far inland as Lewiston and as far east as Belfast. Mainly because of habitat loss - primarily from the natural succession of their thicket habitat, and the lack of creation of new habitat to replace it - the species had declined to just 17 percent of their historical range in Maine by the early 2000s. As a result, the hunting season was closed, the species was listed as State Endangered, and our restoration effort began.

The primary method of species recovery is the creation and maintenance of the dense young forest and shrubland habitat that this native rabbit needs. Since 2008, Maine has had a New England Cottontail Restoration Coordinator position (currently Sarah Dudek) tasked with recruiting landowners to manage habitat for cottontails and providing those landowners with assistance in doing so. But it takes time for habitat to develop after management occurs, as young shrubs and trees need time to grow to a sufficient size and stem density to provide places for rabbits to find cover from predators. So despite our initial efforts, the species continued to decline to the point that by 2017 the NEC range comprised less than 15 square miles (a >99% decline) in parts of just six towns in southernmost Maine.

In an effort to monitor NEC populations across the entire species' range, biologists from the six states (ME, NH, MA, CT, RI, and NY) with current populations work together to carry out a regional monitoring program. As part of the program, all sites known to be occupied in Maine, along with a similar number of vacant but apparently suitable sites, are surveyed every other year to determine the occupancy rate, or the percentage of all sites that are occupied. If the number of occupied sites goes up over time, it tells us that the population is increasing, and vice versa. During the first year of the regional monitoring program, during the winter of 2017-18, only 21 patches of suitable habitat were occupied in Maine, marking what may have been an all-time low in the population.



Maine Department of Inland Fisheries and Wildlife's small mammal biologist, Cory Stearns, releases a NEC in Wells, ME as part of Maine's NEC reintroduction program/MDIFW



First Steps (continued)

Fortunately, our restoration efforts have begun to show results. Areas that were managed to provide cottontail habitat have grown up to the point that they are now suitable for NEC. In fall 2017, we began releasing rabbits from a zoo-based conservation breeding program, placing 20 individuals in good habitat at the Wells Estuarine Research Reserve in the Town of Wells. Now, thanks to improved habitat on the landscape and periodic population augmentation, a self-sustaining population of NEC has been re-established in Wells, increasing from just a single known site (the Wells Reserve) in the first year of the regional monitoring effort to nine in the most recent survey.



One of 12 NEC released in Maine in March 2024 to augment release sites/MDIFW - L. Kintz

Similarly, the NEC population in the towns of Cape Elizabeth and Scarborough has increased from 14 to 25 known occupied patches, and the statewide number of known occupied patches has more than doubled, to 45. Our second (Scarborough Marsh Wildlife Management Area) and third (a Rachel Carson National Wildlife Refuge property in Kittery) release sites are showing promising early results, including the dispersal of a New England cottontail born at Scarborough Marsh into a new habitat patch.



With these developments, Maine's NEC appear to be filling in their existing range, and also spreading outward, including recolonizing several patches from which they had been absent for eight or more years. There is still a long road to the recovery of Maine's only native rabbit, but we've taken the first promising steps on that long journey.

A released NEC takes its first jump into restored habitat at Scarborough Marsh Wildlife Management Area/MDIWF - L. Kintz



Bipartisan Infrastructure Law Funding to Create and Enhance Habitat for New England Cottontails in Maine

Ted Kendziora
Wildlife Biologist
U.S. Fish & Wildlife Service - Partners for Fish and Wildlife Program

Can a law designed to fund improvements to our nation’s infrastructure – repairing highways and bridges, providing broadband access, promoting clean water – help a beleaguered species of wildlife? At first, you might think it can’t. But conservationists have found a creative way to use funds from the Bipartisan Infrastructure Law (BIL), passed by Congress in 2021, to boost the chances that the New England cottontail (NEC), the region’s only native rabbit, will continue to thrive in Maine.

In early 2023, several conservation partners came up with a plan to protect humans’ property while improving habitat for a variety of wildlife species that need young forest and shrubland. The proposal called for reducing hazardous fuel loads: an excess of dead woody matter on the ground and in the treetops in forests, whose combustion can increase the severity of a wildfire whether caused by a natural force, such as lightning, or by human actions.

In August 2023, The Nature Conservancy (TNC) received BIL funds to reduce hazardous fuel loads in southern Maine, potentially protecting communities in several towns and saving millions of dollars by lessening the risk of a catastrophic wildfire. TNC has joined with the Maine Department of Inland Fisheries and Wildlife and the U.S. Fish and Wildlife Service to treat over 400 acres of forest. The conservationists will thin both managed and unmanaged woodland tracts and create fields, fire breaks, and safety zones in those areas. Such efforts can also improve habitat for NEC and other wildlife.

The Rachel Carson National Wildlife Refuge (RC NWR) in Wells is one of the partnering properties to be enhanced through the use of BIL funds, portions of which were targeted to guard federal property against catastrophic wildfires. Such efforts will also protect neighboring properties in this highly developed section of Maine’s coast.

In Maine, NEC is found in only six towns in the southern part of the state: Cape Elizabeth, Scarborough, Wells, York, Kittery, and Eliot, with an overall population of approximately 350 rabbits. That population is much reduced from numbers of cottontails found in the past, since the habitat that these cottontails need has been steadily dwindling. Today, Maine classifies NEC as “endangered” in the state.



A typical view of northern hardwood forest on Rachel Carson National Wildlife Refuge/T. Kendziora

Bipartisan Infrastructure Law (continued)

NEC can live in dense forest understory beneath mature trees. But as the trees' canopies link together, they shut out sunlight and prevent it from reaching the forest floor. As a result, the low plants – forbs, grasses, shrubs – that provide cottontails with food and cover begin to dwindle and can ultimately die. With no hiding cover and no food to eat, local cottontail populations can wink out.

At the same time, fallen branches, twigs, and leaves can build up on the ground in an unmanaged forest. These materials, especially when dry, can let a small wildfire quickly become a huge blaze that can spread from one tree to the next and to humans' houses and developments.

In New England and throughout the East, climate change is leading to less or no snow cover in winter, higher temperatures year-round, and extended summer droughts – all of which increase the likelihood and increased intensity of wildfires in a forest ecosystem. In 2016, a human-caused wildfire burned 315 acres northwest of the Wells Reserve at Laudholm (Wells Reserve has a population of NEC); that blaze took place mainly on conserved land, with no loss of human infrastructure and no injuries to people. Smaller human-caused wildfires have occurred both before and since the 2016 blaze. No one wants a catastrophic fire to flare up in this bustling region where humans live alongside wildlife and where homes and infrastructure mingle with natural land.

On November 8, 2021, Maine Public published, "[Fighting Fire With Fire: As Maine Warms Up, Prescribed burns Become More Necessary.](#)" Reporter Susan Sharon wrote: "When it comes to raging wildfires, Maine is no California. As the most heavily forested state in the country, Maine's climate is wetter. California is warmer and drier. There's more lightning and more wind in the Golden State.

"But Maine's changing climate is increasing the possibility of more and bigger fires – and now, like in California, prescribed burns are being used ... as a fire management tool."



Firebreak construction by The Nature Conservancy's Maine Fire Management team/The Nature Conservancy

Bipartisan Infrastructure Law (continued)

In much of southern Maine, most of the land currently isn't great rabbit habitat. Typically, forest stands have been largely unmanaged, resulting in middle-aged closed-canopy woods that don't have enough ground-level food and cover for NEC, and many other kinds of wildlife that need such habitat. The 400 acres slated for treatment are situated within a large continuous barrens area that consists of more than 3,893 acres of diverse sandplain communities including sandplain grasslands, pitch pine-heath barrens, pitch pine-scrub oak barrens, and red maple alluvial swamp forest. These upland habitats host unique plant communities that are adapted to harsh environmental conditions such as dry, nutrient-poor soils, wind, frost, and fire. The frequent disturbances created by these harsh environmental factors maintain the plant species composition and structure which is preferred by a unique suite of animals.

When carefully designed and carried out, a prescribed burn can renew ground-level vegetation. Combined with tree-thinning, this forest-management tool can renew the low dense cover that NEC share with a wide range of birds, reptiles, and pollinating insects.

As of March 2024, conservation partners have managed more than 200 acres (of the planned 400) in southern Maine through forest thinning, and treated more than 80 acres with prescribed fire.

If you are interested in more details about this work or would like help in planning how to protect your property or community while enhancing wildlife habitat through thinning or prescribed burning, please reach out to your local conservation specialist and/or organizations, listed on page 9.



Prescribed burn at Rachel Carson National Wildlife Refuge Timber Point unit. The burn was conducted on April 11, 2022, by fire crews from TNC, the U.S. Fish and Wildlife Service (New England Fire Zone), National Park Service, and the State of Maine (Army National Guard and Bureau of Parks and Lands) personnel. RC NWR, TNC and the State of Maine have been partnering to implement projects such as this one in southern Maine for decades
/The Nature Conservancy



Kits Niche: Rabbit Vision

Meghan Crawford
Community Engagement Biologist
Massachusetts Division of Fisheries & Wildlife

In nature, there are predators and there are prey. **Predators** are animals that hunt and eat other animals. **Prey** are animals that are eaten by other animals. Predators and prey have special traits that make them better able to survive, including their eyesight.

Predators, like foxes, have eyes that are located toward the front of their head. This gives the predator better eyesight directly in front of them, making them more skilled at catching prey.



Photo credit: USFWS



Photo credit: USFWS

Prey, like New England cottontails, have eyes that are located toward the sides of their head. This gives them better side-to-side eyesight, making it so they can easily detect danger around them.

Try the craft on the next page to experience predator and prey eyesight!

Kits Niche: Rabbit Vision

Try this craft to experience predator and prey eyesight!

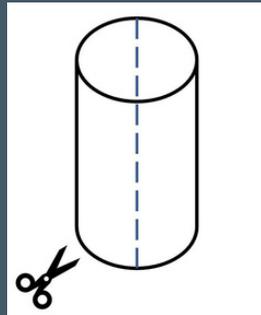
Materials:

- 3 cardboard tubes
- Scissors
- Marker

Instructions:

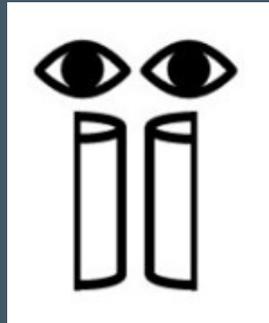
1. Using a marker, label 2 cardboard tubes “predator”.

2. Cut the remaining cardboard tube in half the long way (see image).



3. Using a marker, label each side of the cut cardboard tube “prey”.

4. To see like a prey animal, hold each side of the cut tube up to your eyes like binoculars, with the rounded sides facing toward your nose (see image).



5. To see like a predator, hold the 2 tubes labeled “predator” up to your eyes like binoculars.

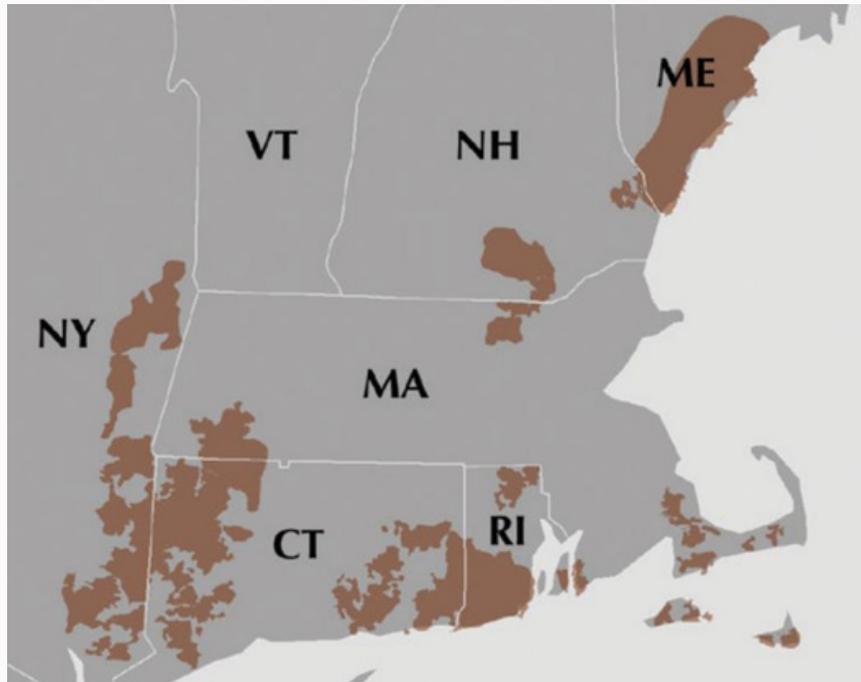
6. When trying each, ask yourself:

- How well can you see to your left and right?
- How well can you see directly in front of you?
- How might each eyesight help or challenge an animal when catching their food or escaping danger?

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