Photo © Bill Byrne/MassWildlife

FACES OF CONSERVATION

A Clear-Cut Discovery — Uncommon Cottontails!

We feature consulting forester Jim Kelly, who actively manages his family's forests and fields in Sheffield. His goal has been to improve forest habitat while providing for forest products, reducing dependence on fossil fuels, and enhancing habitat for wildlife. What he couldn't predict was that his forest management cuts produced a significant wildlife discovery. This past year, based on DNA analysis of rabbit pellets collected on his land, MassWildlife confirmed that the Kelly Family Farm is home to the uncommon New England cottontail. There hasn't been any evidence of this animal's presence in Sheffield in decades, though it has been found in the neighboring town of Monterey as recently as 2014.

Historically, the New England cottontail (NEC), our only native rabbit, was very common throughout New England and New York. It looks identical to its common and non-native relative, the Eastern cottontail. Over the last 50 years, the range of NEC has shrunk. It is now only found in southern Maine, southern New Hampshire, parts of Massachusetts, Connecticut, Rhode Island, and New York east of the Hudson River—less than one fifth of its historical range. The major reason for the NEC's decline is tied to habitat loss and change. Development has taken

much land once inhabited by cottontails and thousands of acres that used to be young forest and shrubland habitat, which is critical for NEC existence, has grown into more mature forests, where rabbits don't generally live.

Natural disturbances such as flooding and wildfires created plenty of young forest in the past. But today, these factors are suppressed to protect developed areas. There is also some opposition to cutting trees. The result? There is no longer enough thick, re-growing young vegetation to support the needs of the wildlife that depend on this special habitat. To address the NEC's plight, state and federal natural resource agencies have partnered with towns, land trusts, companies, and private landowners to create the New England Cottontail Initiative. These partners are communicating the conservation message, offering funding for habitat management to eligible landowners, creating and managing young forest habitat to help the NEC, looking for evidence of new NEC sites, and monitoring known NEC sites. This winter, MassWildlife plans to return to the Kelly property to continue documenting the rabbit's presence through pellet (dropping) collection and analysis.

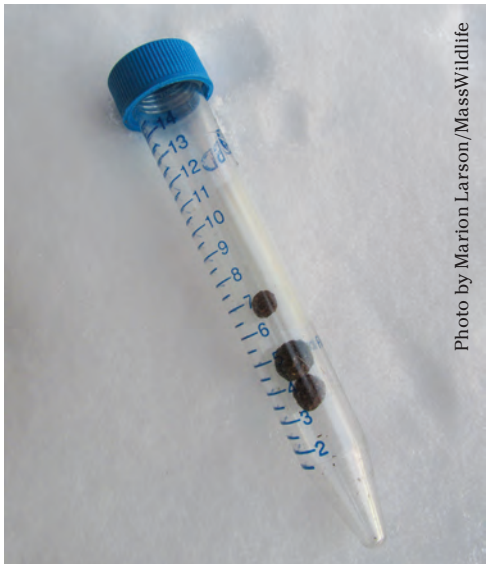

Photo by Marion Larson/MassWildlife

Because the two cottontail species in Massachusetts are indistinguishable, DNA analysis of rabbit pellets (droppings) solves the identification problem. The data confirms the presence of the New England cottontail and helps biologists direct habitat management near known NEC sites, facilitating range and population expansion.


Photo © Jill D. Graham

Fresh cut

Three years post-cut

Removing mature trees stimulates growth of young trees, shrubs, and herbs that are critical to New England cottontail (NEC) existence. When post-cut woody vegetation gets tall and thick enough, NEC, ruffed grouse, and other wildlife that benefit from young forest habitat will thrive.

Photo by Marianne Piché/MassWildlife

Jim's parents purchased the 200-acre farm in 1951 through a veteran's home loan benefit created by the Servicemen's Readjustment Act of 1944, commonly known as the G.I. Bill. The land was originally a combination of active and abandoned agricultural fields and pasture, open meadows, young even-age forests, and older stands of trees—particularly large pines. There was also a large forested swamp. "My parents set up bluebird boxes and were devoted to the surrounding beauty," recalls Kelly. They continued their neighborly 'care for the land' approach with one neighbor using the open fields, another neighbor using the pasture and barns. It was a good fit in both the environmental and social fabric of the landscape. In the summer, Jim and his siblings played and wandered over the entire property. He opined that those explorations, summer work on a neighboring dairy farm, and an Outward Bound trip in Colorado set him on the path to become a forester. He attended the University of Maine at Orono and graduated with a forestry degree which included some wildlife coursework.

Jim Kelly and his hunting dog Bailey.

Jim began active forest management on his family's land in the summer months during his college years and continued after graduation while starting his own forestry consulting business. His prime motivation at the time was income; creating wildlife habitat was not a consideration. Over time, Jim's forest management philosophy evolved. "I see myself now as the current steward of the land," he said. Through additional purchases, the property now totals 330 acres. The entire property (excluding the house and 3 acres) are protected by an Agricultural Preservation Restriction. As an American woodcock and partridge (ruffed grouse) hunter, Jim knew he could make some useful habitat changes for game species that would also benefit other wildlife. Timber harvesting began in 1976 and by the 1990s at least two-thirds of the family property had undergone some kind of active forestry management, creating a blend of forest ages and types. Since 2008, he has received funding from the Natural Resources Conservation Service, which has helped to create young forest patches and other types of forest habitat. In one case, he worked out a combined forest cutting effort with his neighbor. In 2014, a Mass Audubon forest bird survey on his land gave kudos for the management activities, accounting for the presence of a variety of prioritized young forest songbirds including eastern towhee and chestnut-sided warblers.

Jim is actively involved in the conservation community. He hosts tours on his property showing what the forest looks like 1, 5, 10, and 35 years after a cut. He has served as a member of the State Forester Licensing Board, Sheffield Planning Board, and the Sheffield Land Trust board of directors. He is currently serving on the Massachusetts Forest Alliance board of directors, the Forester's Council—as its chair, Town of Sheffield Agricultural Commission, and the Sheffield Farmers Market Steering Committee, and Jim somehow manages time for his clients in eastern New York and western Massachusetts. Thanks Jim, for the example you set for managing forest land and your commitment to communicating the conservation message to others. May the New England cottontails be fruitful and multiply!

UPDATE: New England Cottontail Conservation

New England Cottontail (NEC) conservation efforts were featured in the article *Hugging Baby Trees*, which appeared in the No. 1, 2015, issue of *Massachusetts Wildlife* magazine. It described how landowners like Jim Kelly are contributing by creating young forest patches. From 2011 through 2015, 13 private landowners in the southern Berkshires chose to manage habitat with projects ranging in size from 5 to 40 acres and totaling 225 acres. Through 2019, 32 young forest habitat patches have been created on private land in the southern Berkshires, bringing our total to 450 acres or about half way to our goal of 1,000 acres for that region. We are continuing to partner with private landowners interested in helping this uncommon cottontail by funding habitat management projects on private and municipal lands. If you are interested in managing your land to create young forest patches, contact MassWildlife Habitat Biologist Marianne Piché at marianne.piche@mass.gov and visit newenglandcottontail.org for more information about regional conservation efforts.

The Search

MassWildlife searches annually for NEC by collecting pellets and sending them out for DNA analysis. We do this because native and non-native rabbits cannot be distinguished from one another by appearance. In 2019, NEC were also documented at two locations near Jim's property in Sheffield: one in New Marlborough and one in Sandisfield in a 10-year-old young forest habitat patch created to benefit American Woodcock. NEC has also been found in Monterey, Tolland, and Granville since 2011. Because NEC do not travel far, targeting habitat management efforts within a few miles of where they occur is most beneficial.

Photo by Bill Byrne/MassWildlife

Listing Status

From 2006 until 2015 the NEC was a candidate for federal Endangered Species Act protection. However, in September of 2015, the U.S. Fish and Wildlife Service made a decision not to list it due, in part, to ongoing commitments made by conservation partners to implement the Conservation Strategy for the NEC and reach habitat and population goals by 2030.

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Few sounds in the woods of New England are as iconic as a “drumming” ruffed grouse (*Bonasa umbellus*). Grouse are a fixture of northern forests across all of North America. In Massachusetts, grouse will utilize a variety of forested habitat, but thick, dense, regenerating young forest is critically important to provide ample food and cover from predators. These habitats are rare across southern New England. MassWildlife foresters and biologists are focusing their efforts to increase young forest habitat to benefit grouse and numerous other species that rely on these dense, brushy habitats. Photo by Bill Byrne/MassWildlife

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