Young Forest

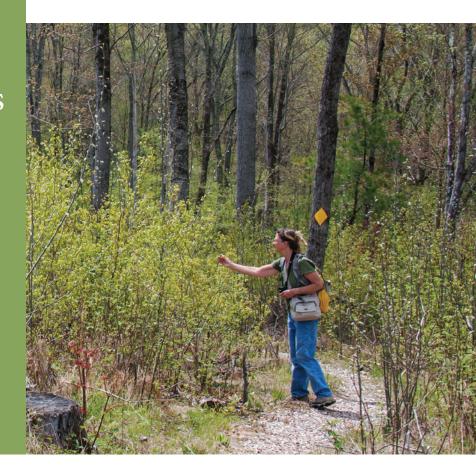




More Wildlife in Your Woods

CREATE YOUNG
FOREST AND
ENJOY THE
WILDLIFE IT
ATTRACTS

WHEN TO EXPECT DIFFERENT ANIMALS



his guide presents some of the wildlife you may see using your young forest as it grows following a timber harvest or other management practice.

The following lists focus on areas inhabited by the New England cottontail (Sylvilagus transitionalis), a rare native rabbit that lives in parts of New York east of the Hudson River, and in parts of Connecticut, Rhode Island, Massachusetts, southern New Hampshire, and southern Maine. In this region, conservationists and landowners are carrying out projects to create the young forest and shrubland that New England cottontails need to survive. Such projects also help many other kinds of wildlife that use the same habitat.

Young forest provides abundant food and cover for insects, reptiles, amphibians, birds, and mammals. Both rare and common wildlife use young forest, and more than 60 species in the Northeast need it to survive. Other terms sometimes

used to describe this dense, food-rich habitat are **thickets**, **shrublands**, **and early successional habitat**.

As development has covered many acres, and as young woodlands have matured to become older forest, the amount of young forest available to wildlife has dwindled. Having diverse wildlife requires having diverse habitats on the land, including some young forest.

In nature, young forest is created by floods, wildfires, storms, and beavers' dam-building and feeding. To protect lives and property, we suppress floods, fires, and beaver activities. Fortunately, we can use **habitat management practices**, such as timber harvests, to mimic natural disturbance events and grow young forest in places where it will do the most good. These habitat projects boost the amount of food available to local wildlife. They also provide dense cover where animals can rest, evade predators, and take shelter during inclement weather.

 $\mathbf{2}$

Will I See a New England Cottontail?

In young forest created by either a natural disturbance or through habitat management, New England cottontails may show up after three or more years of tree and shrub growth. They'll be more likely to occupy a new habitat if it's within a mile or so of an existing New England cottontail population. New England cottontails generally remain in the habitat until the forest is 15 to 20 or more years old, at which point trees shade out shrubs and other low plants that the rabbits need for feeding and hiding.

Your Forest is Unique . . . and Important

Remember, each habitat project will look a bit different because of soil characteristics, the amount of sunlight a site receives, or the types of plants and seed sources present. Also, the years when various animals appear may differ from site to site. Different animals may use the habitat at different times of the day, including at night. Some will breed and feed there in spring and summer, while others will rely on food and cover resources during spring and fall migrations or in winter.



New England cottontail



Native goldenrod, aster, and Virginia rose

How to Use This Guide

Animals that require young forest at some time during their lives are listed in **boldface**; many are rare, and their populations are declining. Notes in parentheses following a species' name indicate a certain season in which an animal is likely to use young forest, or a different name by which the animal is known.

The following lists are only partial; you will likely see other kinds of wildlife as well, or discover signs of their presence, such as tracks and scats (droppings). Not all of the species listed are found throughout the geographic area covered by this publication; consult a reference book to be sure of a correct identification.

Throughout the New England cottontail's range, many young forest habitats are quickly occupied by the eastern cottontail (*Sylvilagus floridanus*), a non-native rabbit introduced to the region many years ago. The eastern cottontail is now more abundant than the New England cottontail. It is not included in the following species lists, although it can be found in all of the forest ages described.

Forests are important habitats. Creating enough young forest will let us help the New England cottontail and other wildlife now and in years to come.

THE First YEAR...



Red-spotted purple butterfly

Spot-winged glider dragonfly

Box turtle

merican woodcock use newly cleared areas as singing grounds in spring. Mourning doves, dark-eyed juncos, white-throated sparrows, and other birds find food on the exposed ground. Bees emerge from winter nests in soil, plant stems, and cavities in wood. Turtles and snakes bask in the sunlight and lay eggs in sun-warmed soil. As the growing season progresses, caterpillars feed on leaves, and wildflowers provide nectar and pollen for bees, butterflies, and



American woodcock

American toad

moths. Dragonflies, birds, and bats hunt for flying insects above fresh clearings, and hawks perch nearby to watch for prey. Foxes and other predators may find the patch and add it to their hunting circuits.

Checklist

OF WILDLIFE IN A FOREST'S FIRST YEAR

Ins	sects
	Ants
	Bumble bees
	Honey bee
	Solitary bees
	Crickets
	Grasshoppers
	Fireflies
	Hoverflies
	Tiger beetles
	American lady butterfly
	Red-spotted purple butterfly
	Spring azure butterfly
	Blue dasher dragonfly
	Green darner dragonfly
	Skimmer dragonflies
Re	ptiles and
An	nphibians
	- American toad
\Box	Spadefoot toad
	Box turtle
	Wood turtle
	Black racer
	Black rat snake
	Brown snake
	Garter snake
	Hog-nosed snake
	Milk snake
	Ring-necked snake
	Smooth green snake



Worm snake

Checklist

(CONTINUED)

Birds

- Broad-winged hawk
- Cooper's hawk
- Red-tailed hawk
- Wild turkey
- **Bobwhite quail**
- American woodcock
- Mourning dove
- Common nighthawk
- Whip-poor-will
- Chimney swift
- Ruby-throated hummingbird
- Northern flicker
- Eastern phoebe
- Barn swallow
- Tree swallow
- Eastern bluebird
- Baltimore oriole
- Dark-eyed junco

- Whip-poor-will
 - Fox sparrow (winter)
- Song sparrow
- White-throated sparrow

Mammals

- Opossum
- Big brown bat
- Little brown bat
- **Bobcat**
- Coyote
- Mink
- Short-tailed weasel (ermine)
- Raccoon
 - Red fox
- White-tailed deer



Cooper's hawk







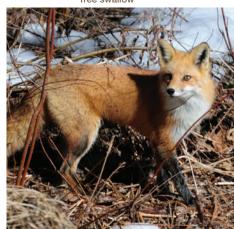


Ruby-throated hummingbird

Mourning dove



White-throated sparrow



Red fox



IN 1 to 5 YEARS...



single summer can yield a lush growth of grasses and wildflowers. In succeeding years, vines and shrubs spread, and saplings spring up. A wide range of birds feed themselves and their young on increasing numbers of insects, especially butterflies and moths and their caterpillars. Wild turkeys, field sparrows, and blue-winged warblers nest



Monarch butterfly



Bumble bee



Smooth green snake



Yellow-breasted chat

on the ground or in low shrubs. Turtles, snakes, and toads use the site for basking, feeding, and breeding. The expanding food and cover resources attract mammals, including small rodents, such as mice and voles, and the weasels, foxes, and bobcats that hunt them. In areas of new habitat near existing New England cottontail populations, these native rabbits may show up after around three years.

Checklist

OF WILDLIFE IN 1-5 YEARS

Insects

	Ants
	Bumble bees
	Honey bee
	Solitary bees
	Hoverflies
	Flower beetles
	Crickets
	Grasshoppers
	Fireflies
	Leafhoppers
	Great-spangled fritillary
	Monarch butterfly
	Silver-spotted skipper
	Spicebush swallowtail
	Tiger swallowtail
Rep	otiles and
Am	phibians
	American toad
	Spadefoot toad
	Box turtle
	Spotted turtle (near wetlands
	Wood turtle
	Black racer
	Black rat snake
	Brown snake
	Garter snake



Milk snake

Worm snake

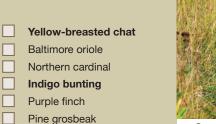
Ring-necked snake

Smooth green snake

Checklist

O I	WILDLIFE
ΙN	1-5 YEARS
(C	ONTINUED)
Bire	ds
П	Broad-winged hawk
	Cooper's hawk
П	Red-tailed hawk
	Sharp-shinned hawk
	Wild turkey
	Ruffed grouse
	Bobwhite quail
	American woodcock
	Mourning dove
	Yellow-billed cuckoo
	Great horned owl
	Screech owl
	Whip-poor-will
	Ruby-throated hummingbird
	Eastern kingbird
	Eastern phoebe
	Willow flycatcher
	Yellow-bellied flycatcher
	(spring, fall)
	Barn swallow
	Tree swallow
	Brown thrasher
Ш	Gray catbird
	Northern mockingbird
	Hermit thrush
	Cedar waxwing
Ш	Northern shrike (winter)
	White-eyed vireo
	Blue-winged warbler
	Common yellowthroat
	Golden-winged warbler
	Mourning warbler
	Nashville warbler

Prairie warbler Yellow warbler



(winter)

(winter)

(winter) Song sparrow Dark-eyed junco

Mammals Opossum Big brown bat Little brown bat

Common redpoll

American goldfinch **Eastern towhee** Chipping sparrow Field sparrow Fox sparrow

New England cottontail Snowshoe hare

Meadow jumping mouse

Deer mouse

Meadow vole White-footed mouse Southern red-backed vole

Long-tailed weasel

Striped skunk **Bobcat** Black bear White-tailed deer

Short-tailed weasel (ermine)

Coyote Gray fox Red fox Raccoon

Mink

Moose

Coyote





Snowshoe hare





Wild turkey



Yellow-billed cuckoo



Brown thrasher



Opossum Ruffed grouse





12



IN 5 to 10 years...



nsects abound, including flies, bees, wasps, and caterpillars and their adult-stage butterflies and moths.

Reptiles and amphibians feed on insects, vegetation, and fruits, and find shade during summer's heat. Wild turkeys, woodcock, and ruffed grouse nest on the ground, and many other birds nest in shrubs and small trees. Birds that breed



Song sparrow

SIMMANIA

Monarch caterpillar



Sphinx moth



Common yellowthroat

in older forest - such as scarlet tanagers and rose-breasted grosbeaks - visit the site and catch insects to take back to their nestlings; when the young birds leave the nest, their parents bring them to the dense habitat, where they learn to feed themselves. Mammals from mice to black bears take advantage of the plentiful food and thick hiding cover. New England cottontails become more abundant.

Checklist

OF WILDLIFE IN 5-10 YEARS

Insects

- Ants
 Bumble bees
- Honey bee
- Solitary bees
- Hoverflies
- Bush crickets
- Grasshoppers
- Fireflies
- Buck moth
- Showy emerald moth
- Sphinx moths
 - Promethea moth
- Mourning cloak butterfly
- Monarch butterfly
- Viceroy butterfly
- Spicebush swallowtail
 - Tiger swallowtail

Reptiles and Amphibians

- American toad
- Fowler's toad
- Box turtle
- Black racer
- Black rat snake
- Brown snake
- Garter snake
- Hog-nosed snake
- Milk snake
 - Ring-necked snake
- Worm snake



Checklist Nashville warbler Prairie warbler Yellow warbler OF WILDLIFE Yellow-breasted chat Scarlet tanager IN 5-10 YEARS Northern cardinal (CONTINUED) Indigo bunting Purple finch **Birds** Pine grosbeak Cooper's hawk (winter) Sharp-shinned hawk Rose-breasted grosbeak American woodcock Common redpoll (winter) **Bobwhite quail** American goldfinch Ruffed grouse Eastern towhee Wild turkey Chipping sparrow Black-billed cuckoo Song sparrow Yellow-billed cuckoo Dark-eyed junco Great horned owl Saw-whet owl **Mammals** Screech owl Opossum Whip-poor-will Big brown bat Ruby-throated hummingbird Little brown bat Eastern kingbird **New England cottontail** Willow flycatcher **Snowshoe hare** Yellow-bellied flycatcher Beaver (near water) (spring, fall) Chipmunk Barn swallow Deer mouse Tree swallow Porcupine **Brown thrasher** Southern red-backed vole **Gray catbird** White-footed mouse Northern mockingbird Coyote Hermit thrush Gray fox Swainson's thrush Red fox (spring, fall) Raccoon Cedar waxwing Fisher Northern shrike (winter) Long-tailed weasel White-eved vireo Blue-winged warbler Short-tailed weasel (ermine) Canada warbler Striped skunk **Chestnut-sided warbler Bobcat** Common Yellowthroat Black bear Golden-winged warbler Moose

Ovenbird

Mourning warbler



Eastern towhee





Prairie warbler



Eastern kingbird





17

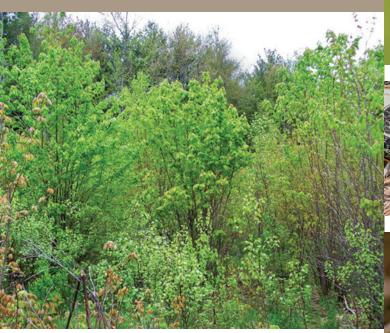
Indigo bunting

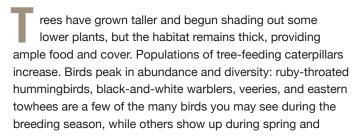
Wild turkey nest

16

White-tailed deer

IN 10 to 15 YEARS...







Southern red-backed vole



Tiger swallowtail



Garter snake



Chestnut-sided warbler

fall migrations or find important food in winter. In areas near water, beavers may cut regrowing trees for food and dam-building material. New England cottontails continue to use the habitat, with populations peaking toward the end of this forest stage. Landowners may start planning future young forest projects to renew habitat and provide a home for this rare rabbit and other wildlife.

Checklist

OF WILDLIFE
IN 10-15 YEARS

		ts

- Ants
- Bumble bees
- Honey bee
- Solitary bees
- Hoverflies
- Crickets
- Tree crickets
- Grasshoppers
- Buck moth
 - Imperial moth
- Polyphemus moth
- Luna moth
 - Sphinx moth
- Banded hairstreak butterfly
- Monarch butterfly
- Spicebush swallowtail
- Tiger swallowtail
- Weevils

Reptiles and Amphibians

- American toad
 - Black rat snake
- Garter snake
- Milk snake
- Ring-necked snake



Prairie warbler Checklist Yellow warbler Common grackle OF WILDLIFE Scarlet tanager Northern cardinal Pine grosbeak (CONTINUED) (winter) Purple finch **Birds** Rose-breasted grosbeak Broad-winged hawk Common redpoll (winter) Cooper's hawk Chipping sparrow Sharp-shinned hawk Eastern towhee American woodcock Song sparrow Ruffed grouse White-throated sparrow Wild turkey Black-billed cuckoo **Mammals** Yellow-billed cuckoo Opossum Barred owl Short-tailed shrew Great horned owl **New England cottontail** Saw-whet owl **Snowshoe hare** Screech owl Beaver (near water) Ruby-throated hummingbird Chipmunk Northern flicker Deer mouse Yellow-bellied sapsucker Porcupine Great crested flycatcher Southern red-backed vole Willow flycatcher White-footed mouse Yellow-bellied flycatcher Woodchuck (spring, fall) Woodland jumping mouse **Brown thrasher** Coyote Gray catbird Gray fox Northern mockingbird Red fox Hermit thrush Raccoon Swainson's thrush Fisher (spring, fall) Long-tailed weasel Veerv Mink Wood thrush Short-tailed weasel (ermine) Cedar waxwing Striped skunk American redstart **Bobcat** Black-and-white warbler

Black bear

White-tailed deer

Moose

Blue-winged warbler

Chestnut-sided warbler Golden-winged warbler Mourning warbler Nashville warbler

Canada warbler



Yellow warblers





Mink



American woodcock



Gray catbird



Scarlet tanager



21

Hermit thrush

Raccoon

IN 15 to 20+ years...



his age of woodland generally offers less food and cover than younger or older growth. Most trees aren't mature enough to produce abundant nuts, and understory plants, including fruit-bearing shrubs, thin out in the trees' shade. Abundant forest insects, including butterfly and moth caterpillars, provide food for birds and other animals. Several kinds of woodland salamanders return as the increased shade



Moose

C of

Luna moth



Red eft



Wood frog

supports the moist conditions they need. New England cottontail numbers drop off until the rabbits no longer live in the forest patch. Landowners can "refresh" the habitat through another management action, such as a noncommercial timber cut, or, to meet the goals they set for their woodland, create a new patch of thick young forest elsewhere on their property.

Checklist

OF WILDLIFE IN 15-20+ YEARS

Insects

- Ants
- Bumble bees
- Banded hairstreak butterfly
- Oak beauty moth
- Imperial moth
- Polyphemus moth
- Sphinx moths
- Luna moth
- Beetles
- Crickets
- Grasshoppers
 - Weevils

Reptiles and Amphibians

- Red-spotted newt (red eft)
 - Redback salamander
 - American toad
- Spring peeper
- Gray tree frog
- Wood frog
 - Black rat snake
- Ring-necked snake



Beaver



Checklist

IN 15-20+

Broad-winged hawk Cooper's hawk Sharp-shinned hawk

American woodcock Ruffed grouse Wild turkey Barred owl Great horned owl

(CONTINUED)

Birds

Ш	Saw-wnet owl
	Screech owl
	Ruby-throated hummingbird
	Downy woodpecker
	Hairy woodpecker
	Northern flicker
	Pileated woodpecker
	Yellow-bellied sapsucker
	Eastern phoebe
	Eastern wood pewee
	Great crested flycatcher
	Least flycatcher
	Blue jay
	Black-capped chickadee
	Red-breasted nuthatch
	White-breasted nuthatch
	Brown creeper
	Hermit thrush
	Veery
	Wood thrush
	Blue-gray gnatcatcher
	Ruby-crowned kinglet
	Cedar waxwing
	Red-eyed vireo
	American redstart
	Black-and-white warbler



Chibi	nunk
	Canada warbler
	Chestnut-sided warbler
	Hooded warbler
	Yellow-rumped warbler
	Scarlet tanager
	Northern cardinal
	Rose-breasted grosbeak
	Eastern towhee
Ма	mmals
	Opossum
	Short-tailed shrew
	New England cottontail
	Snowshoe hare
	Beaver (near water)
	Chipmunk
	Deer mouse
	White-footed mouse
	Woodland jumping mouse
	Gray squirrel
	Red squirrel
	Porcupine
	Coyote
	Gray fox
	Red fox
	Fisher
	Long-tailed weasel
	Short-tailed weasel (ermine)
	Striped skunk
	Bobcat

Black bear

White-tailed deer

Moose





White-footed mouse



Red-eyed vireo



White-breasted nuthatch

Eastern phoebe



Black-capped chickadee



25

Barred owl



any kinds of wildlife need the dense, highly productive habitat known as young forest. The New England cottontail is considered an "umbrella species." This means that when people create young forest for this rare regional rabbit, they're also making food and cover for a host of other wildlife. The preceding pages list a selection of those animals.

People own land for many different reasons. Some cut timber to provide a financial return or to heat their homes. Others view their properties as natural retreats where they can enjoy peace and quiet. Many landowners have a strong desire to provide a living place for wildlife – and seeing animals, or finding evidence of their presence, brings a thrill to the hiker, hunter, birder, or snowshoeing enthusiast.

The young forest needed by New England cottontails and many other animals doesn't last forever – generally around 10 to 20 years, after which it returns to being older forest. For that reason, management activities must be fairly frequent and ongoing to keep a healthy amount of young forest available to wildlife both locally and regionwide.

Want to make some young forest? Contact your state's wildlife agency, the U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program, the USDA Natural Resources Conservation Service, or a certified forester for details. For some projects, full or partial funding may be available. Find contacts at www.newenglandcottontail.org, www.youngforest.org, and www.timberdoodle.org.

Enjoy being a steward of your land and wildlife!

- Make a trail so you can walk past a habitat area quietly, upping your chances of seeing wildlife.
- Set up trail cameras to take photos of animals using your young forest.
- Make jams and jellies from grapes, blueberries, blackberries, and other wild fruits.
- Build brush piles where wildlife can shelter from the elements and escape predators.
- Keep a journal recording animals you meet and where and when you see them.
- Sign up for eBird or iNaturalist and record sightings and photos of wildlife.
- Host a seminar where natural resources professionals can explain how young forest is important to overall forest health and to a wide range of wildlife.

Photographers: Tom Berriman, Kelly Boland, Chris Buelow, Bill Byrne, Charles Fergus, Tim Flanigan, Paul Fusco, Dave Govatski, Ed Guthro, Richard Martin, Jonathan Mays, Art McKenzie, Phil Myers, Kate O'Brien, Jim Oehler, Marianne Piche, Robert Royse, Ray Thiel, Victor Young, USDA, USFWS









