

The Young Forest Project

HELPING WILDLIFE THROUGH
STEWARDSHIP AND SCIENCE





The populations of more than 65 kinds of wildlife have fallen alarmingly as the amount of young forest has dwindled on the land.

*The yellow warbler is one of many wild creatures that need the highly productive habitat known as young forest.
Credit: Tom Berriman.*

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The greatest threat to the rare New England cottontail is a loss of young forest habitat—places where rabbits can find food, rear young, and escape predators. Credit: Victor Young/NHFG.



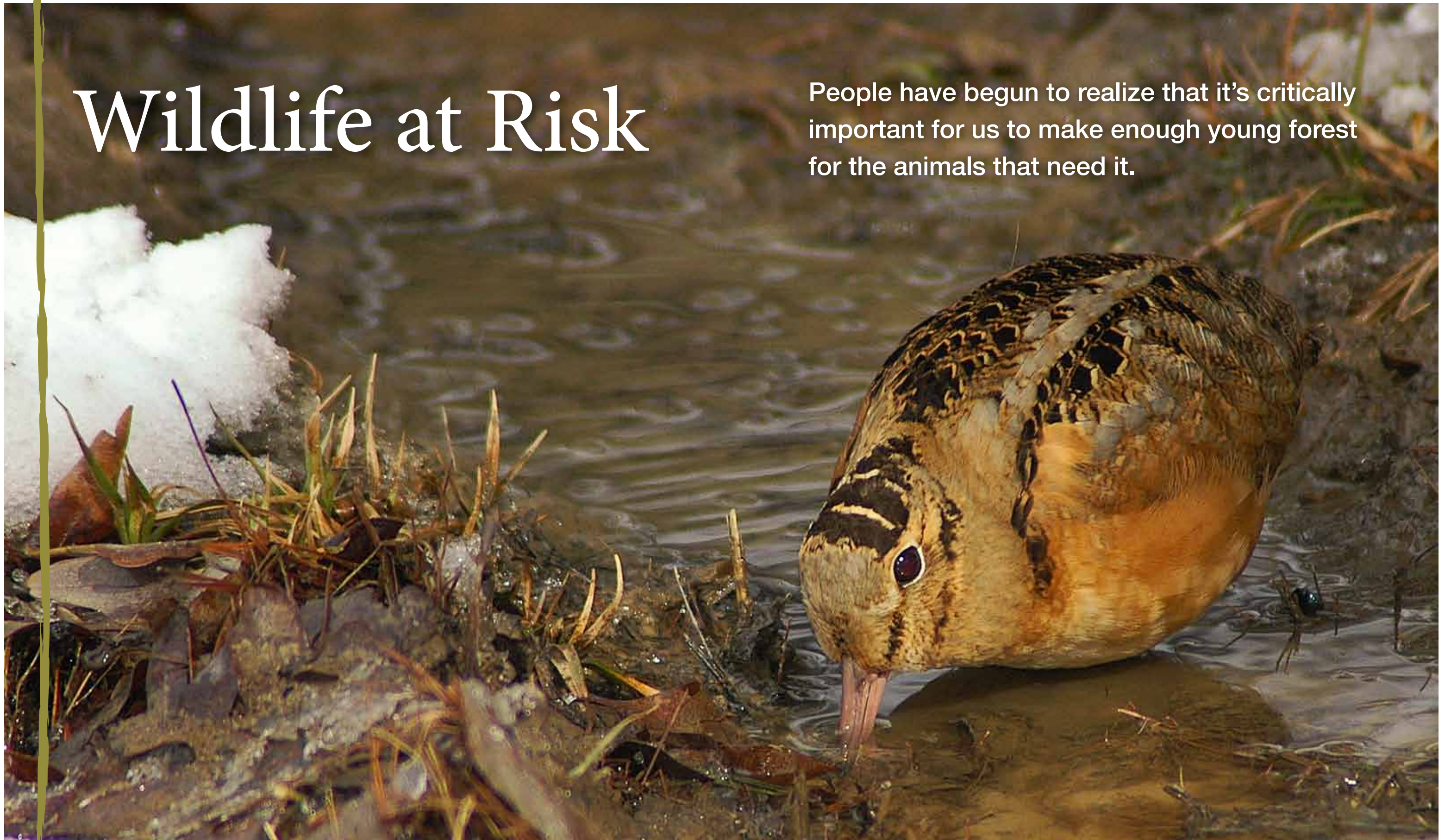
Habitat managers confer at Tamarac National Wildlife Refuge in Minnesota. Credit: Charles Fergus.

The Wildlife Management Institute and its many conservation partners are working hard to create and restore young forest, an extremely valuable habitat for a broad range of wildlife.

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Wildlife at Risk

People have begun to realize that it's critically important for us to make enough young forest for the animals that need it.



The population of the American woodcock has been falling for more than 50 years. Conservationists have begun to reverse that trend by creating the young forest habitat this upland bird needs. Credit: Tim Flanigan.

Wildlife at Risk



Young forest and shrubland areas resound with bird calls in spring. Mammals, reptiles, amphibians, and insects thrive here, too. Credit: Kelly Boland.



The Eastern towhee and more than 40 other kinds of birds need young forest. Credit: Bill Thompson/USFWS.

In the past, natural forces created enough young forest for wildlife. Now it's our responsibility to help nature make this essential habitat.

A large group of wildlife needs the dense, highly productive habitat known as “young forest.” Populations of more than 65 wild creatures have fallen alarmingly in recent decades as the amount of young forest has dwindled across eastern North America.

In the past, natural forces created enough of this dynamic, short-lived habitat for bobcats, New England cottontails, American woodcock, ruffed grouse, indigo buntings, yellow warblers, box turtles, Karner blue butterflies, and scores of other creatures.

Today we blunt nature’s ability to produce young forest. Our dams prevent seasonal floods that once scoured away older trees so that young trees could come in thick. To protect human lives and property, we suppress wildfires that formerly spurred the dense regrowth of vegetation. We no longer let beavers dam streams and flood large areas, killing older trees that would be replaced by younger ones. Logging – once a major producer of new, regrowing forest – has slowed or stopped in many areas.

As a result, our forests have become increasingly uniform, with middle-aged trees shutting out the light that once nurtured the thick ground-hugging vegetation favored by many wild animals. Today, conservation agencies in the northcentral and northeastern states classify more than 65 young-forest denizens as “species of greatest conservation need.”

Fortunately, people have begun to realize that it's critically important for us to make enough young forest for the animals that need it. Over the last decade, conservationists have been carefully and scientifically creating young forest to reverse the population declines of many species. A host of partners have signed on to the Young Forest Project: state and federal agencies, wildlife organizations, land trusts, timber companies, businesses, towns and counties, the U.S. military, and foresters helping citizens manage their farms, woodlands, and vacation properties.

The Wildlife Management Institute encourages and coordinates the activities of this broad coalition. WMI has placed a cadre of experienced habitat biologists throughout New England, the Mid-Atlantic, and the Midwest to enlist partners and help them plan and carry out projects yielding thousands of acres of new young forest – habitat that has been carefully created while preserving other key habitats, including ample older woodlands.

WMI and its partners have set up habitat demonstration areas, both to help local wildlife and to show other natural resources professionals and the public how best to create and renew young forest through techniques such as timber harvesting, controlled burning, planting trees and shrubs,

and using machines to mulch down older shrubs, spurring them to grow back as dense, wildlife-friendly habitat.

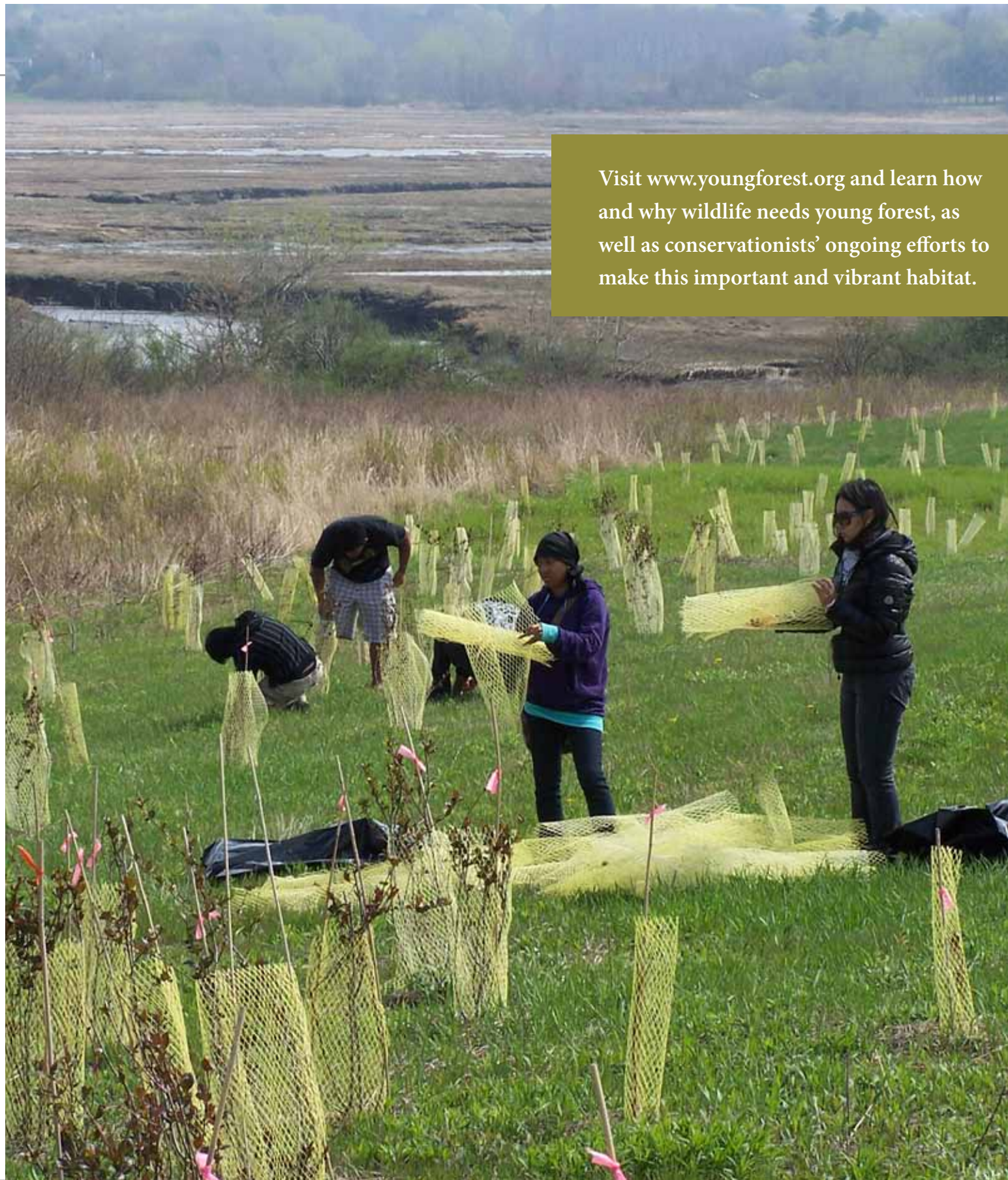
WMI and its partners have focused on making habitat for three key species: the American woodcock, golden-winged warbler, and New England cottontail. By creating habitat for this trio, conservationists ensure that all other young-forest wildlife will benefit. Already, new young forest appears to have halted a decades-long decline in the continent's woodcock population, and recently created habitat may help keep the New England cottontail off the Endangered Species list.

Making young forest is an ongoing task. It's not like protecting wetlands or old-growth forest, which can largely be left alone to produce a steady stream of benefits to the environment. Most young forest provides an adequate density of vegetation for only 15 to 20 years. That means we must continually make new areas of this habitat on the landscape.

We must keep working to find the best places to make young forest, using the most cost-effective techniques, so that the greatest number of wild creatures benefit. We must secure funding to enlist highly motivated partners, conduct research to refine and perfect management techniques, and, perhaps most important, help the public understand why creating young forest is imperative to preserving our nation's wildlife heritage.

Welcome to the Young Forest Project.

Visit www.youngforest.org and learn how and why wildlife needs young forest, as well as conservationists' ongoing efforts to make this important and vibrant habitat.



To help restore habitat for New England cottontails and other wildlife, volunteers plant native shrubs at Rachel Carson National Wildlife Refuge in Maine. Credit: USFWS.

Identifying a Problem

—And Taking Steps to Solve It

“By managing for young forest and shrubland in a mindful way, we can have a profound and lasting impact on stewarding the nature of today for the people of tomorrow.”

—Eric Stiles, New Jersey Audubon

The dark-eyed junco uses the low, thick vegetation of young forest for nesting and feeding. Credit: Tom Berriman.



*The smooth green snake needs young forest and other grassy and shrubby habitats for feeding and traveling.
Credit: Jonathan Mays.*

Identifying a Problem

—And Taking Steps to Solve It



Dense scrub oak offers good habitat on Cape Cod, Massachusetts. Credit: Charles Fergus.

**Nature is a big web,
and without all its parts
functioning properly
and in balance, it can't
work as well as it must.**

Changes in Philosophy and Practice

For centuries Americans turned wetlands into farm fields, cut down forests for their timber no matter the trees' size or age, and converted native grasslands to croplands at a terrific rate.

Things have changed.

We now know that wetlands provide critical habitat for wildlife, limit flooding, and promote water quality. We understand that mature forests are important repositories of genetic material for plants and animals. We work to protect and restore native grasslands and prairies. Those shifts in our society's philosophy and practices are helping return the land – and its wildlife – to health.

Another kind of habitat is less well known but just as important. It's called young forest (biologists know it as "early successional habitat"), and it's essential for a wide range of insects, reptiles and amphibians, birds, and mammals, including many species whose numbers have fallen in recent decades.

In times past, young forest was more abundant across eastern North America, perpetually renewed by hurricanes, ice storms, wildfires, insect pests, spring flooding and ice scouring, and the activities of beavers. Today we hold many of those tree-removing disturbances in check.



White-throated sparrow.
Credit: Tom Berriman.

On the New Jersey Coast

The Southern New Jersey Young Forest Habitat Network takes in both state and private lands, providing prime resting and feeding habitat for hundreds of thousands of birds, from

woodcock to sparrows to falcons, that migrate up and down the Atlantic Coast in spring and autumn.

“By managing for young forest and shrubland in a mindful way, we can have a profound and lasting impact on stewarding the nature of today for the people of tomorrow,” says Eric Stiles of New Jersey Audubon, a major player in the Southern New Jersey Network. Other partners include the New Jersey Division of Fish and Wildlife, The Nature Conservancy, U.S. Fish and Wildlife Service, NRCS, and WMI.

Adds Stiles, “Even a casual birder knows that birds use a mosaic of different habitats – different kinds of shrubs and trees, and vegetation of different ages. The natural disruptions that gave rise to abundant regrowing forest in the past – for instance, wildfires and extensive flooding caused by beaver dams – have largely been halted. Now it’s our responsibility to carefully recreate those kinds of habitat-making events.”

To enjoy a diversity of wildlife, we need a diversity of habitats.

Irresponsible clearcut logging in the late 1800s and early 1900s gave all types of forest management a bad name, leading many Americans to conclude – incorrectly – that cutting down trees is bad for the environment. As a result, logging – once a major producer of new, regrowing forest – has slowed or ceased in many areas.

In the late nineteenth and early twentieth centuries, many marginal farms were abandoned and grew up in brush, providing a temporary body of young forest habitat – now maturing into middle-aged and older forest that fails to provide food and cover for a broad range of wildlife.

Nature is a big web, and without all its parts functioning properly and in balance, it can’t work as well as it must.

Today we are moving toward a new understanding: To enjoy a diversity of wildlife, we need a diversity of habitats. It’s now our responsibility to do what nature once did: Create disturbances that move around on the landscape, giving rise to the short-lived yet extremely productive habitat known as young forest. And we need to do this soon, before many formerly abundant animals become threatened or endangered – or vanish from the land.



Moose feed on young trees and shrubs. Credit: Martin Cathrae.

Reversing a Trend

Because of a steep decline in young forest habitat, more than 65 wild species are seen and heard less frequently than in the past. They include birds like the Eastern towhee, Northern bobwhite, ruffed grouse, American woodcock, hermit thrush, brown thrasher, and dozens of others. In New England and the Mid-Atlantic, fully two-thirds of young-forest bird species suffered significant population declines between 1966 and 2010. (In comparison, less than a quarter of interior-forest birds showed significant declines during that period.)

Young forest is essential for many reptiles, including the Eastern box turtle, wood turtle, and North American rat snake. Among the mammals that need young forest are the Appalachian cottontail, New England cottontail, bobcat, Canada lynx, moose, and snowshoe hare.

WMI has placed biologists in regions with excellent potential for making important young forest habitat.

It’s not just rare and dwindling creatures that require young forest. More-abundant animals also seek out this habitat, including white-tailed deer, black bear, and wild turkeys, plus songbirds that nest in older forest and then take their newly fledged young into patches of regrowing woodland, to evade predators and feed on the fruits and insects tied to the plants that grow so abundantly in those light-filled places.

Over the last decade, the Wildlife Management Institute (WMI) has led an ambitious effort to return more young forest

Deep-Woods Birds Need Young Forest, Too

Conservationists working to reverse population declines of forest-interior birds have tried to preserve the mature forests where those birds breed. A recent study by a U.S. Forest Service biologist suggests that young forest habitat may be just as important. In an August 2013 article in *The Auk*, published by the American Ornithologists' Union, biologist Scott Stoleson of the Northern Research Station in northern Pennsylvania's Allegheny National Forest presents research results showing that young forest growing back in logging clearcuts may be vital to birds as they build strength and lay on fat before heading south in autumn.

Stoleson's work implies that declines in forest-interior species may stem in part from the increasing maturity and homogenization of our woodlands. According to Stoleson, "Humans have really changed the nature of mature forests in the Northeast." He adds, "Natural processes that once created open spaces even within mature forests, such as fire, are largely controlled, diminishing the availability of quality habitat."

On four sites on the Allegheny National Forest and private timber inholdings, Stoleson captured 3,845 songbirds and checked their overall condition, including whether they were building deposits of fat to fuel their migration. He evaluated birds of 46 species: 33 percent of individuals he checked were mature-forest specialists, 22 percent were forest-edge species, and the remaining 45 percent were young-forest specialists. All 46 species were captured in clearcut areas, but only 29 species were netted in mature forest. Stoleson concluded that the birds' use of young forest during the post-breeding period correlates with better physiological condition for some forest birds, suggesting that maintaining areas of young forest within more-mature forested habitat may benefit those species.



Black-throated blue warbler.
Credit: Tom Berriman.

“Natural processes that once created open spaces even within mature forests, such as fire, are largely controlled, diminishing the availability of quality habitat.”

—Scott Stoleson, research biologist, Allegheny National Forest

to the land. Working closely with the U.S. Fish and Wildlife Service, the Department of Agriculture's Natural Resources Conservation Service (NRCS), the National Fish and Wildlife Foundation (NFWF), state agencies, and key nongovernmental organizations, WMI has placed biologists in regions with excellent potential for improving habitat for the American woodcock, golden-winged warbler, and New England cottontail. Making habitat for those three species helps dozens of other kinds of wildlife.

Make young forest for woodcock in Wisconsin, and boost numbers of American redstarts, alder flycatchers, and moose.

Create young forest for New England cottontails in Connecticut, and prairie warblers, brown thrashers, and box turtles thrive.

Carefully site and carry out timber harvests in high-elevation forest in Pennsylvania, and golden-winged warblers quickly show up – while resident Appalachian cottontails, woodland jumping mice, and timber rattlesnakes get the food and cover they need.

Laying Strong Foundations: An Era of Plans

Planning to restore wildlife at the landscape scale essentially began in the 1980s with the *North American Waterfowl Management*



The ruffed grouse is a signature species of young forest.
Credit: Charles Fergus.

Plan, which laid out a strategy for restoring wetlands to help waterfowl and other wildlife that need such habitat. Other conservation plans followed, aimed at helping other groups of species: the *North American Landbird Conservation Plan* (1990), the *U.S. Shorebird Conservation Plan* (2000), and the *North American Waterbird Conservation Plan* (2002).

In reviewing the different species aided by those plans, WMI and its partners realized that they did not fully recognize the importance of young forest to the American woodcock, the ruffed grouse, and the spruce

WMI and its partners recognized the American woodcock as the single species that most clearly represented the largest number of other wild creatures that need young forest.



Young forest in Wisconsin. Credit: Jim Oehler.

grouse. WMI collaborated with NFWF and the Resident Game Bird Working Group of the Association of Fish and Wildlife Agencies, and after three years of work by more than 50 natural resource professionals, the *Ruffed Grouse Conservation Plan for North America* came out in 2006, followed by both the *Continental Conservation Plan for the Spruce Grouse* and the *American Woodcock Conservation Plan* in 2008.

The plans provided guidance on the acres of young forest needed to reverse population declines in those three species. In 2005, even before the formal conservation plans were completed, WMI and its partners recognized the woodcock as the single species that most clearly represented the largest number of other wild creatures that need young forest. By creating woodcock habitat, conservationists could simultaneously help many other animals whose numbers also were falling.

By making woodcock habitat, we can simultaneously help many other animals.

Planning Leads to Action

To implement their shared vision, WMI and its associates formed a partnership for woodcock conservation that included a governance committee to develop strategies and obtain funding. They contracted with experienced habitat biologists to help plan and carry out habitat projects on public and private lands, testing management techniques and technical assistance strategies in different Bird Conservation Regions, or BCRs, across the woodcock's breeding range. The first regional effort, in

the Atlantic Northern Forests, focused on New England and the Adirondack Mountains of New York. Knowledge gained through the Northern Young Forest Initiative flowed to subsequent habitat-creation initiatives in the Appalachian Mountains, Upper Great Lakes, Atlantic Coast, and Lower Great Lakes regions.

Also in 2005, following the nationwide development of State Wildlife Action Plans (SWAPS), WMI worked with states in the Northeast and Midwest to develop a list of some 65 Species of Greatest Conservation Need – wildlife that, during all or crucial parts of their life cycle, need young forest.

In 2006 the U.S. Fish and Wildlife Service designated a young forest mammal, the New England cottontail, as a candidate for endangered or threatened status under the federal Endangered Species Act. The following year, state wildlife diversity program managers named the New England cottontail the top-priority Species of Greatest Conservation Need for regional landscape-scale habitat conservation across the cottontail's six-state range.

In 2008 state and federal biologists began a broad conservation effort aimed at keeping the New England cottontail off the federal endangered list. WMI helped set up the New England Cottontail Executive Committee, composed of leading

resource professionals in state agencies within the cottontail's rapidly shrinking range – parts of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, and New York – as well as the NRCS and U.S. Fish and Wildlife Service. The Regional New England Cottontail Initiative launched in February 2011. In 2012 the New England Cottontail Technical Committee published a *Conservation Strategy for the New England Cottontail*, setting forth a plan, based on adaptive management, for saving the species through a combination of captive breeding and reintroduction to the wild, plus creating specific acreages of the young forest habitat this rabbit needs.



WMI helps guide the effort to save the New England cottontail. Credit: Kelly Boland.



Conservationists explain a young forest habitat project in Connecticut. Credit: Lisa Wahle.

Collaboration Yields Results

WMI habitat biologists advise private and public landowners on how to make and renew young forest in the best places to help the greatest numbers and diversity of wildlife – then they measure how different kinds of wildlife respond. They help folks obtain funding for habitat work, and they set up demonstration areas where visitors can see different management techniques in action, plus observe the positive responses of wildlife.

Through seminars, site tours, websites, and publications, WMI professionals and partners reach out to foresters, land managers, and the general public, emphasizing the value of young forest and explaining how science-based habitat management can preserve

key features like wetlands and mature forest, plus ensure tomorrow's commercially valuable timber stands – all while helping wildlife in a big way.

The amount of new young forest that has sprung from this effort is perhaps unprecedented in the field of habitat creation for wildlife. The Young Forest Project spans 17 states from Maine to Virginia and west to Minnesota. WMI has helped forge partnerships with and among private landowners, state Audubon chapters, land trusts, wildlife-oriented entities such as the Ruffed Grouse Society and National Wild Turkey Federation, forest management companies, sportsmen's clubs, businesses, utilities, towns and counties, universities, and state and federal agencies. New partners join the ranks of the Young Forest Project every month.

Most important, new and refreshed habitats have begun to stabilize and, in some areas, to reverse the population decline of the American woodcock. Habitat projects from New York's Adirondack Mountains south into

The amount of new young forest that has sprung from this effort is perhaps unprecedented in the field of habitat creation for wildlife.

the Appalachians and west to the forests of northern Minnesota aim to increase golden-winged warbler numbers. Habitat created in scientifically designed focus areas may help keep the New England cottontail off the Endangered Species list. And all the other wild creatures that live in those same places have a chance to prosper as well.

Challenges Lie Ahead

Young trees are constantly growing older, which means that a given habitat patch may remain as productive young forest for only 15 to 20 years. We must keep making young forest in cost-effective ways in the places that help wildlife the most. Just as important, we must help people understand that making young forest promotes biodiversity by preserving the wildlife that evolved along with habitat disturbances and can't live anywhere else.

The lessons WMI and its colleagues have learned – use good science, build partnerships, prioritize actions, and focus funding – are working across eastern North America to bring back species in trouble and keep common species abundant. This broad effort generates jobs and income through the harvesting of renewable forest products. And it helps preserve our wildlife heritage for hikers, campers, birders, and the men, women, and families who fish and hunt – now and for generations to come.



Rusty blackbird. Credit: Tom Berriman.

In New York's Adirondacks

In 2011 the Sustainable Forestry Initiative awarded its Conservation Leadership Award for Biodiversity Research to the Lyme Timber Company and WMI in recognition of an ambitious habitat project that's changing the forested face of New York's Adirondack Park. Lyme, a private timberland investment company based in New Hampshire, receives ongoing advice from WMI biologists on where to site timber harvests to benefit young forest wildlife. The project includes strong partnerships with the New York State Department of Environmental Conservation, U.S. Fish and Wildlife Service, U.S. Geological Survey, and NFWF.

Says Sean Ross, Lyme's director of forestry operations, "When we acquired the Adirondack property in 2006, just 76 acres were in a young-forest condition. We have created nearly 11,000 additional acres of suitable habitat and, in 10 years, we aim to have more than 15,000 acres – about 5 percent of our forest – in brushy early successional woodland." Radio-telemetry studies confirm a dramatic increase in woodcock numbers on the new habitat, which also helps species like spruce grouse and rusty blackbirds.



Helping the Timberdoodle

By making woodcock habitat, conservationists have halted and, in some places, begun reversing the woodcock's decline.

American woodcock use a variety of habitats but rarely stray far from young forest. Credit: Tim Flanigan.

Helping the Timberdoodle



*The American woodcock is an “umbrella species” that represents many other wild creatures that need young forest.
Credit: Tim Flanigan.*



Young forest takes over an old field in Vermont. Credit: Charles Fergus.

Since the mid-twentieth century, the population of the American woodcock had fallen 2 to 3 percent each year because of a loss in young forest habitat.

You might say it all started with a shy, 7-ounce, long-billed bird with the appealing nickname of “timberdoodle” and a decided need for thick, densely vegetated places. Since the mid-twentieth century, the population of the American woodcock had fallen 2 to 3 percent each year. The reason? An ongoing erosion in the amount of available habitat, in part from human-caused development but mainly through forest maturation: As areas of old farmland or young forest became middle-aged woods, they lost the dense, sunlight-dependent understory where woodcock find food and shelter.

Early on, WMI saw the timberdoodle as a “guild species” or “umbrella species,” one that represented many of the other creatures that need young forest. By making woodcock habitat, conservationists have halted and, in some places, begun reversing the woodcock’s decline – while helping more than 65 other kinds of wildlife.

Today, WMI biologists work across the timberdoodle’s breeding range from the Mississippi River east to Atlantic Canada and south into the Appalachians. They foster cooperative relationships between agencies, organizations, forest products companies, and public and private landowners, with the goal of making young forest in careful, economical ways to help woodcock and to reverse the woodcock’s decline. Partners range from commercial outdoor centers wanting to provide greater and more diverse wildlife viewing opportunities for their guests’ enjoyment, to forest-



Spotted turtles find food and cover among the dense plants growing in restored meadow openings. Credit: Jonathan Mays.

On Ohio's Lake Erie Plain

Spotted turtles and woodcock get a boost from habitat improvements at the Cleveland Museum of Natural History's 345-acre Geneva Swamp Preserve south of Lake Erie. In one area, reports WMI biologist Jeff Herrick, "We went in with a skid steer and a mulching head to set back hardwood trees that were taking over a wet meadow. The meadow opening with its new thick woody growth will be maintained to benefit both woodcock and the state-endangered spotted turtles that inhabit nearby vernal pools."

Woodcock use the wet meadows as springtime singing grounds and for roosting and resting after they wing across Lake Erie during migration. Much of the preserve was cut over around 15 years ago; the regrowth of trees is now getting too thin to provide top-notch habitat, so more cutting is planned.

A few miles south, in the Grand River Watershed, Herrick is working with the Western Reserve Land Conservancy to make habitat for woodcock – habitat that also helps Eastern massasauga rattlesnakes. The massasauga is classified as endangered in Ohio and is being considered for threatened or endangered status on the federal level. Massasaugas live in moist soil areas, including old fields and stands of shrubs and young trees – prime woodcock habitat. With funding from the U.S. Fish and Wildlife Service, managers are cutting areas of white pines that form woodland barriers that woodcock won't use and massasaugas won't travel through. Following timber cutting, thick shrubs have replaced a formerly barren forest floor.

products companies dedicated to helping wildlife while sustainably harvesting timber, to the U.S. Army needing to keep vegetation low so that personnel can train effectively while simultaneously helping the wild animals that make their homes on military bases.

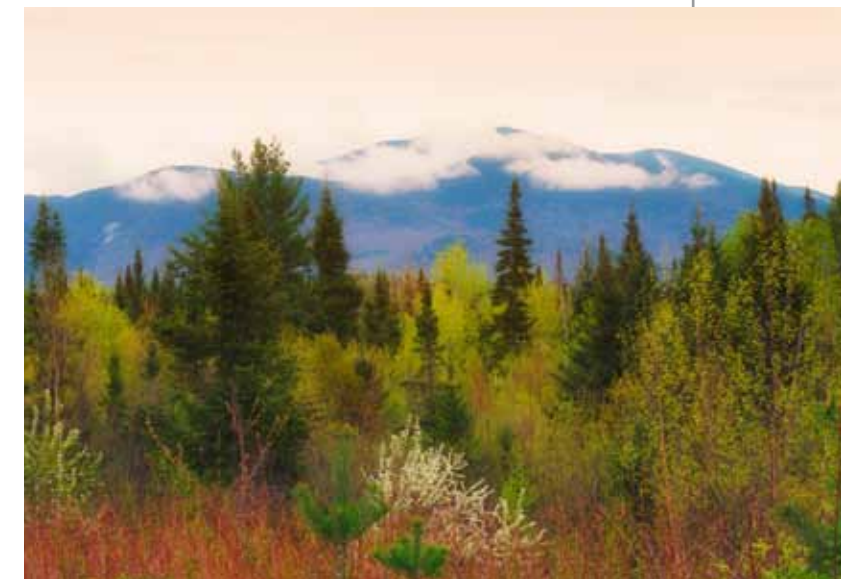
Woodcock Success Stories

On Wagner Forest Management land in northern New Hampshire, WMI biologists give advice on planning and conducting even-aged logging on a grid of 5-acre blocks covering 4,600 acres. Over the next four decades, Wagner will harvest renewable forest products on a rotational basis on all of the blocks, spurring the regrowth of aspen, a fast-growing tree that sprouts prolifically following logging and provides great habitat for woodcock and other wildlife.

"Moose, deer, bear – those are some of the larger animals I see frequently on the regrowing blocks," reports Wagner forester Ray Berthiaume. Canada lynx (listed as threatened under the federal Endangered Species Act) and snowshoe hares, the cats' favorite prey, also get a boost. In 2011 the Wagner project won the prestigious Two Chiefs' Award, bestowed by the U.S. Forest Service and the NRCS on exemplary projects

in which people and organizations work together to support conservation and forest stewardship.

Adds forester Berthiaume, "I just love this project. We get to practice industrial forest management and help animals at the same time. We're managing for wood, water, and wildlife in such a way that we'll have wood, water, and wildlife into the future. This project will go on and on, bringing benefits to the people and wildlife of northern New Hampshire."



In New Hampshire, harvesting timber promotes a dense regrowth of young aspen, great habitat for woodcock and other wildlife. Credit: Ray Berthiaume.

"We're managing for wood, water, and wildlife in such a way that we'll have wood, water, and wildlife into the future."

—Ray Berthiaume, forester, Wagner Forest Management, New Hampshire

Habitat projects vary in scope and size. Some involve a single landowner who wants to see more woodcock – and diverse other birds – on a vacation property or working woodland. In central Pennsylvania’s Georges Valley, a group of private landowners, advised by Penn State University’s Department of Ecosystem Science and Management, the Pennsylvania Game Commission, NRCS, U.S. Fish and Wildlife Service, and WMI, forged a partnership to make patches of young forest for woodcock and associated wildlife. Says Game Commission biologist Lisa Williams, “This watershed will produce more local woodcock, and migrating woodcock will stop and rest in places where they’ll find food combined with cover to protect them from predators. Just think what could happen if projects like this were replicated up and down the Atlantic Flyway.”

Stopping a Decline – and Turning It Around

Dan McAuley is a biologist with the U.S. Geological Survey whose ongoing studies of radio-equipped woodcock helped guide the *American Woodcock Conservation Plan*. McAuley also works with other biologists to carry out the annual Singing-Ground Survey, or SGS, the accepted index to woodcock numbers in North America, in which observers count singing male woodcock along carefully chosen routes during the spring breeding season.



Roger Masse, woodcock researcher at the University of Rhode Island, removes a bird trapped in a mist net. Credit: Gerald Krausse.

“By making habitat over the last decade, WMI and its partners have halted the rangewide decline in the woodcock population,” McAuley says. “Based on SGS data, we’ve seen no decline during the last ten to twelve years. And we’ve observed a dramatic increase in woodcock numbers in areas where habitat is actively being created.”

“By making habitat over the last decade, WMI and its partners have halted the rangewide decline in the woodcock population.”

—Dan McAuley, biologist, USGS



Visit www.timberdoodle.org to learn more about the American woodcock and the many woodcock habitat projects completed by WMI and its conservation partners.

Masse outfits woodcock with radio-transmitters to study how they select and use different habitats at Great Swamp Wildlife Management Area, a habitat demonstration area created by the Rhode Island Division of Fish and Wildlife. Credit: Gerald Krausse.

McAuley monitors woodcock on the Kushaquia Tract in northern New York, one of 20 forest units totaling 276,000 acres under management by the Lyme Adirondack Forest Company. There, WMI biologists offer guidance for siting timber-harvest operations. On those 20 management units, spread throughout Adirondack Park, more than 11,000 acres of new young forest have been created since 2007. Says McAuley, “Our radio-telemetry studies of woodcock on the Kushaquia Tract demonstrate that the birds quickly begin using the new habitat.”

New York’s Comprehensive Wildlife Conservation Strategy lists many other Adirondack birds as Species of Greatest Conservation Need: Olive-sided flycatcher. Bay-breasted warbler. Canada warbler. Black-billed cuckoo. Rusty blackbird.

Spruce grouse. Whip-poor-will. They all need young forest. Make habitat for woodcock, and those birds – plus many reptiles and mammals – find places to live.



New young forest at Great Swamp Wildlife Management Area, Rhode Island. Credit: Charles Fergus.

Helping a Yankee Rabbit

The range of the New England cottontail has shrunk by more than 85 percent as its young forest habitat has dwindled.

Conservationists use captive breeding, reintroduction to the wild, and scientifically designed habitat management projects to boost local cottontail populations. Credit: Victor Young/NHFG.



New England cottontail in dense summer habitat in Maine. Credit: Elizabeth Deletetsky.

Helping a Yankee Rabbit



USFWS biologist Ted Kendziora, left, suggests potential habitat management practices to landowner Tom McAvoy. Credit: Charles Fergus.

“I look at this as a legacy project, one that my sons will be part of in the future.”

—Tom McAvoy, landowner, Scotland, Connecticut

Why would a rural Connecticut landowner spend hundreds of hours and considerable resources changing the face of his property to keep a Yankee rabbit in residence? “There’s a lot to learn about New England cottontails,” says Tom McAvoy, a small-town banker who lives on a former dairy farm near the town of Scotland. On a recent spring day, McAvoy stood in an old pasture choked with non-native invasive shrubs. The pasture was being transformed into better-quality habitat through the removal of some of those invasives by machines, followed by replanting with native shrubs to boost food and cover. McAvoy has received financial support, advice, and encouragement from the U.S. Fish and Wildlife Service, NRCS, the Connecticut Department of Energy and Environmental Protection (DEEP), and WMI. The project on McAvoy’s aptly named Cottontail Farm represents the first public/private partnership to help New England cottontails under the Working Lands for Wildlife program, a joint Fish and Wildlife and NRCS initiative.

As McAvoy watched machines remove straggling clumps of Asian honeysuckle, the calls of indigo buntings, Eastern towhees, and chestnut-sided warblers echoed from nearby fencerows and woods edges. “It makes you feel good to be able to help the rabbits,” McAvoy said, “especially when you know that so many other kinds of wildlife – like the songbirds we’re listening to – need the same kind of cover. I look at this as a legacy project, one that my sons will be part of in the future.”



Carefully harvesting timber can spur the growth of new young forest. Credit: Jim Oehler.

Harvest Timber and Create Habitat

A few miles down the road from Cottontail Farm, on Pachaug State Forest, Connecticut DEEP biologists worked with state foresters to make habitat for New England cottontails through timber harvests near areas where cottontails already live. Loggers will harvest trees on 111 acres. This even-aged forest management mimics a natural disturbance like a wildfire that consumes a section of woods – not destroying it, but setting it back to an earlier growth stage. The stumps and root systems of the harvested trees send up copious shoots, while new young trees sprout from acorns and other seeds. What results is a thicket, a tangle, a vigorous density of habitat that's just right for rabbits.

Projects like the ones at Cottontail Farm and in Pachaug State Forest help put Connecticut at the forefront of a nationwide effort to bring back the New England cottontail. Half a century ago, this “woods rabbit” was abundant. Today it hangs on in tatters of habitat in southern Maine, coastal New Hampshire, Massachusetts, Rhode Island, Connecticut, and eastern New York. The natural succession, or maturing, of forests is the biggest threat to the species' continuance, because without young forest in sizeable patches – 25 acres and up – local New England cottontail populations die out.

Stumps and root systems of harvested trees send up copious shoots. What results is a thicket, a tangle, a vigorous density of habitat that's just right for rabbits.

Cutting-Edge Science Helps New England Cottontails

Captive breeding is proving effective at boosting local New England cottontail populations and jump-starting new populations in fresh habitat. Three states have contributed wild-caught rabbits to the Roger Williams Park Zoo in Providence, R.I., where captive breeding techniques have been designed and perfected.

Conservation partners agreed that states and sites in need will get captive-reared rabbits first. It has taken other rabbit conservation efforts, as with the riparian brush rabbit in California, many years to succeed. In contrast, within only two years New England cottontails bred at Roger Williams Park Zoo have been released into habitat in New Hampshire, where they have survived and even dispersed into nearby high-value parcels where partners have scheduled habitat enhancement.

Currently biologists monitor local New England cottontail populations through repeat surveys to find the rabbits' fecal pellets and thus confirm their continuing presence – or if they've died out – on a given tract of land. Because pellet surveys are labor-intensive, biologists have tended to concentrate on areas already known to have rabbits. Likely there are other important small populations yet to be found within the species' range.

It's expensive to send personnel into habitat that may have New England cottontails – or may only host more-common Eastern cottontails. (Eastern cottontails from Midwestern states were introduced into New England in the last century for hunting purposes. Today, they far outnumber the New England natives, because the Eastern species will more readily use small patches of cover, whereas the New England cottontail needs its brushy young forest habitat in bigger chunks – 25 acres and up.) After workers collect rabbit pellets from different locales, the pellets are subjected to DNA analysis to determine which type of rabbit produced them – another expensive proposition.

In the future, biologists will choose habitats for surveying through a regional-scale randomized plan that will include areas into which New England cottontail populations are expected to expand. And the cost of DNA testing should go down, thanks to high-tech sampling kits now being developed by a team of scientists with the U.S. Geological Survey, the University of New Hampshire, and the University of Rhode Island. Their research is funded through a \$235,000 U.S. Fish and Wildlife Service/U.S. Geological Survey Science Support Partnership.

New England cottontails bred at Roger Williams Park Zoo have been released into habitat in New Hampshire, where they have survived and dispersed into nearby high-value parcels scheduled for habitat enhancement.

A diverse team of partners is working to save the New England cottontail: federal and state agencies, universities, wildlife organizations, a prominent urban zoo, private companies, utilities, towns and municipalities, land trusts, a Native American tribe, and foresters helping people manage their land.

WMI coordinates the rangewide effort. WMI biologists, along with their state and federal counterparts, plan and implement projects that protect, restore, and expand rabbit habitat. They use the latest scientific techniques – including DNA analysis of rabbit droppings, radio-telemetric monitoring of individual animals, and satellite evaluation of habitat – to learn where New England cottontails live and how they move across the land. A captive breeding program at Roger Williams Park Zoo in Providence, Rhode Island, is producing cottontails that have been reintroduced into new and improved habitat.

By making habitat demonstration areas – like the one in Pachaug State Forest in Connecticut; a sprawling complex of

Management takes place exactly where it's needed, without guesswork or wasted resources.

private and public lands on Upper Cape Cod near Mashpee, Massachusetts; a wildlife management area in southern New Hampshire, plus a nearby thicket surrounding the factory of Stonyfield Yogurt; and in three state parks on the coast of Maine – WMI and its partners simultaneously save local cottontail populations while showcasing techniques for creating and renewing young forest: patch cuts in wooded areas, controlled burning, planting native shrubs, and using machines to chew down old, open-grown shrubs so they grow back as fresh, dense cover. Such management practices also help dozens of other kinds of wildlife from tiny flycatchers to burly bears.

WMI scientists have developed computer models that integrate satellite data on different habitats with land-ownership patterns to identify specific locations where New England cottontail restoration stands the best chance of succeeding. Those locations get translated into actual parcels of land, which conservation partners can home in on to find volunteer landowners – National Wildlife Refuges, state forests and wildlife management areas, municipalities, private individuals – to join the effort. Management takes place exactly where it's needed, without guesswork or wasted resources.

The effort to save the New England cottontail provides an excellent example of how multiple partners with a shared goal can raise more funds—and make more habitat—than a single entity could ever achieve. WMI is proud to be part of this important initiative.



Visit www.newenglandcottontail.org to learn how WMI and its conservation partners are helping the New England cottontail by creating habitat, releasing captive-bred rabbits, and more.

Captive-bred rabbits are placed in pens with dense vegetation, like this one under construction in Rhode Island. When acclimated to natural habitat, they are released into the wild. Credit: Dorie Stolley/USFWS.

New England Cottontail Funding Summary - Fiscal Years 2009-2013

Organization	Personnel	Habitat Mgmt.	Habitat Acq.	Research	Monitoring	Outreach	General	Total
CT - DEEP	\$44,133	\$786,390	\$0	\$306,620	\$141,466	\$4,700	\$0	\$1,283,309
MA - DFW	\$151,817	\$162,582	\$0	\$9,987	\$0	\$0	\$7,400	\$331,786
ME - IFW	\$590,953	-\$543	\$16,667	\$56,963	\$0	\$0	\$20,336	\$684,376
NH - F&G	\$274,000	\$0	\$0	\$47,000	\$2,000	\$84,000	\$9,000	\$416,000
NY - DEC	\$510,000	\$25,000	\$0	\$220,000	\$0	\$0	\$0	\$755,000
RI - DEM	\$86,780	\$7,400	\$0	\$886,220	\$0	\$0	\$0	\$980,400
NRCS	\$3,155,315	\$2,132,691	\$5,914,840	\$20,000	\$120,000	\$177,500	\$0	\$11,520,346
FWS	\$1,941,755	\$829,800	\$0	\$155,913	\$47,422	\$49,850	\$59,310	\$3,084,050
*Grants								\$5,083,850
Total	\$6,754,753	\$3,943,320	\$5,931,507	\$1,702,703	\$310,888	\$316,050	\$96,046	\$24,139,117

*State, federal, and private sources.



“We need areas within the forest that are of different ages, have different types of trees, and occur in different arrangements on the land.”

—Dan Eklund, biologist, U.S. Forest Service

Helping the Golden-Winged Warbler

Conservationists manage habitat for golden-winged warblers by providing ample young regrowing trees and shrubs, while keeping some taller trees for males to use as singing perches. Credit: Dave Putnam.

Helping the Golden-Winged Warbler



Credit: Charles Fergus.

Golden-winged warblers are hurting these days, as forests across their breeding range grow too old to support the dense low cover where the birds hide their nests.

WMI biologist Amber Roth studies how golden-winged warblers use young forest – and how to tailor management practices to help those colorful songbirds, whose numbers have been falling for decades. In spring, Roth captures warblers in mist nets, then puts colored bands on their legs so she can monitor their breeding activities and nesting success. Her main research plot is Lake Tomahawk Young Forest Habitat Demonstration Area, a WMI-supported project in Wisconsin’s Northern Highland-American Legion State Forest.

Golden-winged warblers are hurting these days, as forests across their range grow too old to support the dense low cover where the birds hide their nests. Breeding Bird Survey results suggest a yearly population decline of 9 percent in the Northcentral states and a frightening 20 percent in the Northeast. (The U.S. Fish and Wildlife Service is currently reviewing data to decide whether the golden-wing should be protected under the Endangered Species Act.)

A good way to boost a local population is to provide ample young regrowing trees and shrubs, while keeping some taller trees for males to use as singing perches during the breeding season. On 225,000-acre Northern Highland-American Legion State Forest, timber harvests create around 5,000 acres of young forest each year. At Lake Tomahawk, Roth augments the ongoing logging with mechanical treatment of alders: using

Male golden-winged warbler. Credit: Robert Royse.

machines to mow down those wetlands shrubs so they grow back as thick habitat.

Other wildlife also benefit. Roth recently hosted a “woodcock walk” for the public on her golden-wing study area. “People were amazed at how many male woodcock were calling from the ground and flying up into the sky at twilight, trying to attract mates,” she says. “Whip-poor-wills were also abundant. There must have been 20 of them sounding off.”

Making Habitat in the Upper Midwest

The Lake Tomahawk project is part of the North Central Wisconsin Young Forest Initiative, a cooperative effort involving the Wisconsin Department of Natural Resources, the U.S. Fish and Wildlife Service, the Ruffed Grouse Society, the American Bird Conservancy, and WMI. The initiative aims to have a habitat demonstration area in each of seven counties in the region – places where visitors can see, hear, smell, and feel what young forest is like, plus enjoy the wildlife that it supports and attracts.

Nearby, on 1.5-million-acre Chequamegon-Nicolet National Forest, conservationists have mapped out 12 areas where aspens have grown too old to provide habitat for golden-winged warblers and other wildlife, a trend that holds true across much of the Upper Midwest. On Chequamegon-Nicolet, commercial logging is bringing back wildlife-

friendly stands of young aspen while creating jobs and yielding valuable timber products. Timber harvests spur the aspens to grow back densely, helping restore the health of the trees’ long-lived, acres-broad root systems. This project alone will create and renew some 13,000 acres of young forest over the next 40 years.

Says Dan Eklund, a U.S. Forest Service biologist on the Chequamegon-Nicolet, “People often perceive of forests simply as forests. They don’t see how different elements fit together to create a productive forested landscape. We need areas within the forest that are of different ages, have different types of trees, and occur in different arrangements on the land. We need to remember that a lot of animals that breed in mature forest also need young forest at one time or another – and also that a lot of animals that breed in young forest need mature forest as well. The key is keeping all of the different elements in the right balance.”

Visit www.youngforest.org to learn about wildlife that need young forest. More information is available from www.gwwa.org, the website of the Golden-Winged Warbler Working Group.

In the West Virginia Mountains

Monongahela National Forest’s 919,000 acres lie in a region The Nature Conservancy considers “an area of global ecological importance” thanks to its varied habitats. This working forest is home to many kinds of wildlife and provides clean water, timber products, and recreation for humans from rock climbers to hunters. “As far back as 1996,” says forest wildlife program manager Dan Arling, “we recognized that we needed a better age-class distribution of trees across the forest,” arrived at by increasing the amount of young forest habitat.

Partnering with The Nature Conservancy, National Wild Turkey Federation, Ruffed Grouse Society, West Virginia Division of Natural Resources, and WMI, Monongahela Forest staffers use timber harvests, prescribed burns, tree planting, and mechanical shrub- and tree-mowing to create thousands of acres of new young forest each year. Through the Forest Service’s stewardship contracting program, funds from timber sales go into improving habitat via projects that employ local people.

Active management keeps wildlife openings in a brushy state, restores stands of spruce, and regenerates oak and hickory woods. Golden-winged warblers nest in the patchy habitat of young hardwoods. Ruffed grouse and woodcock thrive following timber harvests. Snowshoe hares find shelter in the new young spruce and in turn are preyed on by bobcats. Timber rattlesnakes hunt rodents in regrowing forest. “Even species thought of as deep-woods dwellers are helped,” says Arling. “This is a holistic effort benefiting the entire community of wildlife.”



Bobcat on the hunt. Credit: Art McKenzie.

“This is a holistic effort benefiting the entire community of wildlife.”

—Dan Arling, biologist,
Monongahela National Forest

A Chestnut-sided Warbler is perched on a dark brown branch, facing left. The bird has a bright yellow crown, a black stripe through its eye, and a prominent reddish-brown breast band. Its wings and back are olive green with yellow streaks. The background is a clear, light blue sky. The text 'Communicating, Monitoring, and Measuring' is overlaid on the left side of the image in a large, white, serif font.

Communicating, Monitoring, and Measuring

WMI and its partners use science to keep tabs on whether efforts yield the results that wildlife need.

Chestnut-sided warblers nest in young forest where shrubs and ground cover grow thick. Credit: Tom Berriman.



Biologists Heidi Holman, left, and Nancy Pau examine cover in a holding pen for captive-bred New England cottontails in New Hampshire. Credit: Charles Fergus.

Communicating, Monitoring, and Measuring



Birders enjoy an outing in young forest restored at Albany Pine Bush Preserve, New York. Credit: Wendy Craney.

Communications and outreach combine with monitoring wildlife and creating habitat to advance the Young Forest Project.

To keep the Young Forest Project rolling, conservationists and communications specialists have developed strategies for working effectively with public and private landowners – strategies that inform people of the benefits both they and wildlife receive from making young forest.

Outreach efforts aided by advice and coordination from WMI include a *Communications Strategy to Support Implementation of the American Woodcock Conservation Plan* (2009); *Encouraging Pennsylvania Landowners to Implement Young Forest Management Practices – Draft Communications Strategy Framework* (2012); a *Young Forest Habitat Communications Strategy for the Northeast* (2012); and a *New England Cottontail Outreach Strategy* (2012). WMI published *Under Cover: Wildlife of Shrublands and Young Forest*, an illustrated 87-page book (available both in print and on-line) profiling more than 60 creatures that need young forest. In 2013 WMI and its partners brought out *Talking About Young Forest: A Communication Handbook*, which natural resource professionals are using to tell the stories of the many wild creatures that need this habitat.



New habitat created by WMI and its partners may have halted the decades-long population decline of the American woodcock. Credit: Tim Flanigan.

Recognizing the need to communicate through the world-wide web, WMI has created three popular websites: www.timberdoodle.org, on the American woodcock; www.newenglandcottontail.org, examining the New England cottontail's plight; and www.youngforest.org, an over-arching website that explains what young forest is, which animals live there, and how to create it in a sustainable, cost-effective way. The websites present easy-to-read stories about

successful habitat projects carried out by a range of private and public partners.

Monitoring Anchors Success

To keep tabs on whether efforts and expenditures yield the results that wildlife need, WMI and its partners use an array of science-based evaluation tools.

Woodcock Singing-Ground Survey

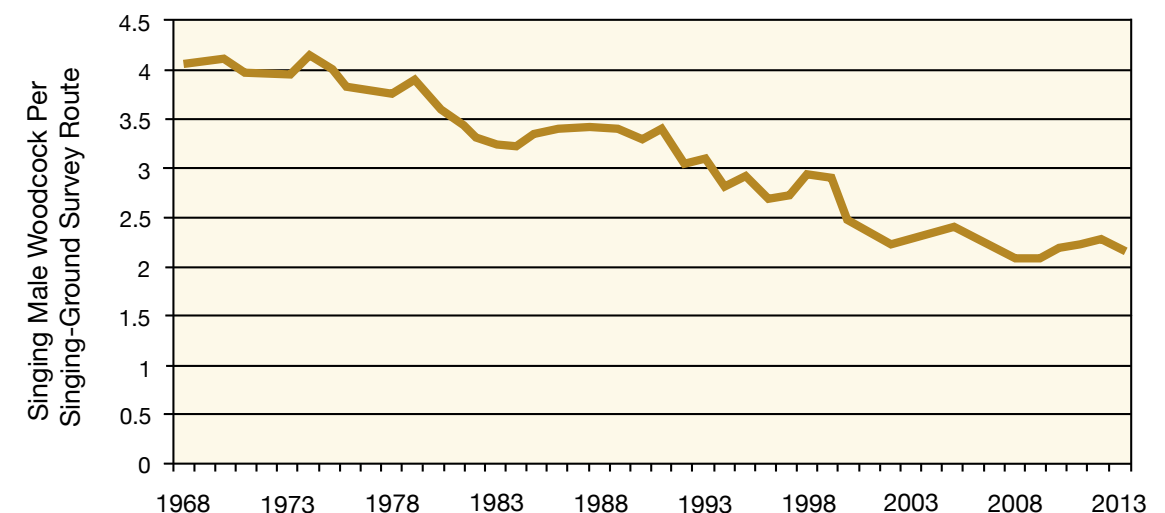
An index to the relative size of the woodcock breeding population in North America, the Woodcock Singing-Ground Survey, or SGS, is the single most important source of data guiding federal, state, and provincial woodcock management, including setting the length of each year's hunting season for this migratory game bird. As part of their springtime courtship behavior, male woodcock exhibit aerial and vocal displays each evening. Trained observers listen for and record numbers of singing males heard along predetermined routes in different parts of the woodcock's range.

The graph below shows that woodcock numbers, as indexed by the SGS, fell

steadily since the late 1960s but recently have stabilized and, since 2008, generally have begun to rise. The objective of the *American Woodcock Conservation Plan* is to return woodcock numbers to those of the 1970s. Most woodcock biologists – including many involved in the SGS – believe that recent habitat creation efforts have halted the decades-long population decline and may have reversed it in some areas.

Forest Inventory and Analysis Program

The Forest Inventory and Analysis Program, or FIA, run by the U.S. Forest Service, records status and trends in forest area and location; in the species, size, and health of trees; in tree growth, mortality, and removal by harvest; in wood production; and in forest land ownership.



The graph at the bottom of this page, based on the most recent available data, shows the percentage of young forest (0-19 years old) in the 17 states in the Young Forest Project. Habitat created by WMI and its partners may be responsible for the upswing in the amount of young forest from 2010 onward.

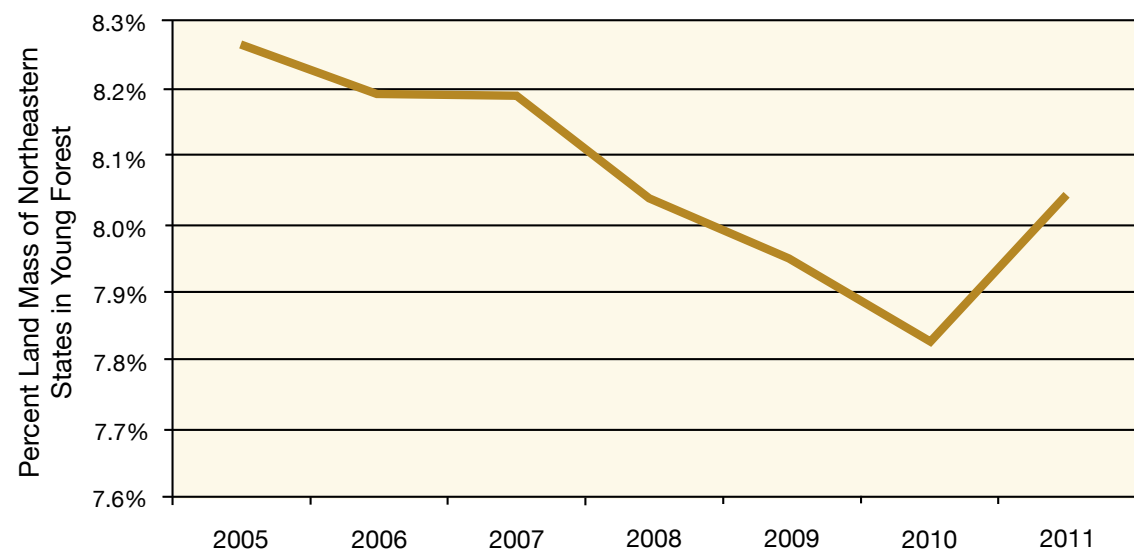
More Tools to Improve Accuracy

To track accomplishments on the ground, WMI developed a “DataTracker” data base for storing and reporting young forest management and outreach data. Biologists and partners use <http://wmitracker.appspot.com> to register actions and achievements within a mapping framework.

Such efforts are critical in helping dwindling wildlife. The conservation effort to save the New England cottontail provides an example. To decide whether the cottontail should ultimately be placed on the Endangered

Species list, the U.S. Fish and Wildlife Service must follow stringent status-assessment requirements of the federal Endangered Species Act, including considering the levels of commitment that partners have made to conserve the species and whether conservation efforts are yielding a larger and healthier population of this rabbit.

WMI’s DataTracker lets partners show how many acres of young forest and thicket habitat they’ve created, and where those acres lie in relation to existing New England cottontail populations. Those facts will help the Fish and Wildlife Service make an informed and accurate decision on whether or not the New England cottontail should receive endangered or threatened status. (Federal endangered status for the cottontail is something that conservationists across a broad spectrum of groups hope to avoid, since making and managing habitat for an animal become much more difficult once it’s officially classified as endangered.)



Wildlife technicians equip a New England cottontail with a radio collar at Camp Edwards, Massachusetts. Credit: Massachusetts Military Reserve.

Moving Into the Future

Putting it all together means using the best available science to design a pattern of healthy forests on the land, in the locations most helpful to all wildlife.



*Young forest quickly regrows following timber harvesting and brush mowing, offering the dense habitat that wild creatures need.
Credit: Charles Fergus.*

Moving Into the Future



*Habitat specialists check out a recent clearcut designed to benefit woodcock and other wildlife in southern Ohio.
Credit: Charles Fergus.*



*Young forest on a Pennsylvania farm.
Credit: Charles Fergus.*

Collaboration between partners – something that WMI is uniquely positioned to encourage and facilitate – results in more efficient use of funds and more creation of habitat for wildlife.

Collaboration between partners – something that WMI is uniquely positioned to encourage and facilitate – results in more efficient use of funds and more creation of habitat for wildlife. To be effective, WMI and its partners must move forward on existing habitat management projects; enlist new partners and start new projects; follow through on communications and outreach plans to increase public understanding of why we must make more young forest; and devise new and innovative approaches to conservation.

Putting it all together means using the best available science to design a pattern of healthy forests on the land, in the locations most helpful to all wildlife, and working with partners who have the ability and motivation to carry through with key habitat projects.

The Flow of Funding

In its early years, the Young Forest Project drew funds mainly through a series of grants from NFWF and WMI. Since then, many sources of funds have helped the effort. While some funds have been earmarked to help certain wildlife, essentially all habitat-creation projects benefit scores of species.

Work to conserve the American woodcock has been driven by a series of seven phases of funding through NFWF's Bird Early Successional Habitat Keystone – grants that helped expand the Young Forest Project into 17 states from Maine to Virginia and west to Minnesota.



Brown thrashers need young forest and shrubby habitat. Credit: Ed Guthro.

Progress, Partners, and the Public

Most stands of young forest remain thick and productive wildlife habitat for only 15 to 20 years. After that, trees grow tall and shut out sunlight so that ground vegetation dwindles and no longer offers the food and cover that many wild creatures need. Scientists agree that to keep the land healthy, we must continue to make new parcels of young forest.

Through research and monitoring, we must increase our knowledge of how and when wild animals use young forest. We must identify the most important places to locate this key habitat. We must refine and perfect management techniques for carefully creating and renewing young forest. We must maintain strong partnerships with and between the agencies, organizations, municipalities, and individuals who already have answered the call to make young forest on lands they own or manage. And we must find new conservation partners to join in this effort to keep common creatures common and to save wildlife whose numbers have fallen.

We constantly work to find creative ways of involving the public and educating people so that they understand the need for a continual flow of new young forest on the land. Kept well informed, the public will accept and approve the habitat management actions needed to safeguard our native wildlife.

Young forests provide habitat for thriving and diverse wildlife populations while offering exceptional recreational opportunities and economic benefits to humans and their communities.

Please support the Young Forest Project.

Funding to help the New England cottontail has come from a variety of sources, including the states that have populations of the rabbits, NRCS offices in those states, the U.S. Geological Survey, and the U.S. Fish and Wildlife Service, with more than \$24 million spent since the cooperative effort began.

Major sources of funds include three Competitive State Wildlife Grants; three NFWF Keystone New England Cottontail grants; two Fish and Wildlife Service Challenge Cost Share Grants; two U.S. Geological Survey Science Support Grants; two NRCS Technical Assistance Partnership Grants; and almost \$4.5 million allocated by the six New England cottontail states. A Partners Grant from NFWF and NRCS provides technical assistance to private landowners to use Farm Bill money under the Working Lands for Wildlife program: By late 2013, \$3.9 million had been spent to create and renew habitat on private lands.

While the level of support and cooperation has been nothing short of remarkable, the partners linked by the Young Forest Project continue to look for new ways to fund this crucial initiative.



Young forest offers a wealth of food for wildlife. Credit: Charles Fergus.

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Why WMI?

Founded in 1911, the Wildlife Management Institute has a long history of excellence in promoting the management of our nation's wildlife resources. WMI strives to restore and ensure the well-being of wildlife populations through exacting science and carefully crafted partnerships. WMI is a small private nonprofit that operates efficiently and effectively from field offices. Its personnel include highly trained and experienced wildlife science and management professionals who work mainly with federal and state agencies, Congress, college and university researchers and educators, other private conservation organizations, and professional associations. To do its work, WMI depends on funding from both governmental and private sources.

WMI endorses the validity and importance of science-based wildlife management and seeks to promote biological diversity through applying the principles of ecology.

WMI recognizes that effectively managing our valuable wildlife resources calls for skillfully blending science with an understanding of human circumstances, values, and expectations.



The Young Forest Project directly benefits more than 65 kinds of wildlife—mammals, birds, reptiles, and insects whose populations have been falling. As we move into the future, we will continue to make young forest in cost-effective ways in the places that help wildlife the most.

For more information about the Wildlife Management Institute and its ongoing conservation work, visit www.wildlifemanagementinstitute.org. To learn more about the effort to create and restore young forest in eastern North America, see www.youngforest.org.

