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**Northern Saw-whet Owls,
Migratory Bird Treaty Act,
Trout Stream Restoration**

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LITTLE HUNTERS

— Brandi Van Roo

A close-up look at the smallest owl in the eastern United States: the Northern Saw-whet Owl.

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CELEBRATING A CENTURY OF MIGRATORY BIRD PROTECTION

— H W Heusmann

For 100 years, the Migratory Bird Treaty Act has protected both game and non-game birds from a variety of threats; we reflect on its successes and current-day threats to the Act itself.

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HAMANT BROOK: RESTORING A LANDSCAPE FOR TROUT AND TURTLES

— Caleb Slater

The removal of three dams on Hamant Brook in Sturbridge has enhanced habitat for Eastern Brook Trout and Wood Turtles.

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State and federal biologists work together to set scientifically-sound waterfowl hunting regulations.

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On the Cover: When the snag containing the cavity nest of a family of Northern Saw-whet Owls fell over, it dumped this youngster and a sibling onto the ground. Since both birds could not yet fly, they were brought to a wildlife rehabilitator who checked them for injuries and fed the young owls for a few days until they could fly. Then the owls were placed back into the forest in a suitable cavity in northwestern Middlesex County where photographer Mark Wilson photographed one youngster peeking out at a big new world. The two owls soon flew into the woods. Photo © Mark Wilson, eyesonowls.com

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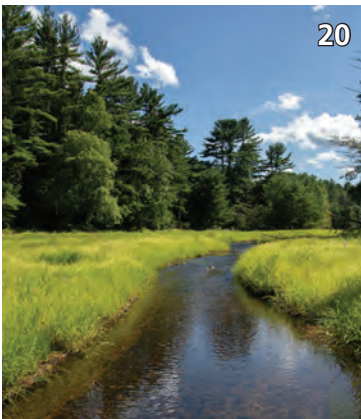
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Photo © Mark Wilson



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Photo by Bill Byrne/MassWildlife



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Photo © Troy Gipps



Hamant Brook

Restoring a landscape for trout and turtles

by Caleb Slater

Today I'm taking a hike in MassWildlife's Leadmine Mountain Wildlife Conservation Easement in Sturbridge. Leadmine Mountain was created in 2006 when MassWildlife purchased a conservation restriction on 826 acres of land owned by the town of Sturbridge. This arrangement allows this area, popular with local residents, to remain as open space while managed for fisheries and wildlife habitat by MassWildlife. Public access is through two large parking areas and a network of town-maintained trails.

After a short walk through the forest from the parking area, I emerge into a wide grassy meadow. Hamant Brook, a tributary of the Quinebaug River, flows freely through the center of the meadow. It's an idyllic scene, the tall grass waves in the summer breeze, insects buzz and butterflies flit about. It's nearly impossible to tell that just last summer this meadow was a pond. But some clues

remain; along the stream bank are the shells of freshwater mussels that once inhabited the pond bottom. A closer look at some seemingly out of place concrete structures emerging from the landscape will reveal the remains of dam abutments and outlet works; which is why I'm here, to survey the outcome of MassWildlife's Hamant Brook Restoration Project.

Last September, after a decade of preparation, planning, and permitting, a contractor removed three dams along a three-quarter-mile stretch of Hamant Brook upstream of its confluence with the Quinebaug River. Two of the dams were on land owned by the Town of Sturbridge and one on land owned by Old Sturbridge Village. The dams were old and in a state of disrepair; in fact, two were under orders from the Massachusetts Office of Dam Safety for required repair or removal. While many in town supported dam repair and retention of the



Heavy equipment removes one of three dams at Hamant Brook in Sturbridge.

Photo by Caleb Slater/MassWildlife

Before

Photo by Caleb Slater/MassWildlife



Restoring a free-flowing Hamant Brook has enhanced habitat for Wood Turtles.

small ponds, this option was expensive and the cost would have been borne by the town alone. MassWildlife saw this as an opportunity to restore a section of a known Coldwater Fish Resource (designated as such because it supports a native population of reproducing Brook Trout). The project was an opportunity to improve water quality, restore aquatic organism passage, enhance riverine and riparian function and connectivity, and decommission aging infrastructure all at little cost to any of the project partners. That's correct: a \$1.4 million project with minimal cost to the project partners. How? First of all, the project lies within the Quinebaug River watershed and was eligible to receive environmental mitigation funds from Millennium Power. The company operates a natural gas-fired electric power generating plant in Charlton which uses the Quinebaug River for cooling water. The project also received some funding through grant programs for environmental restoration.

But as amazing as it seems, finding the funding for the project turned out to be the easy part. It was convincing a

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Photo by Bill Byrne/MassWildlife

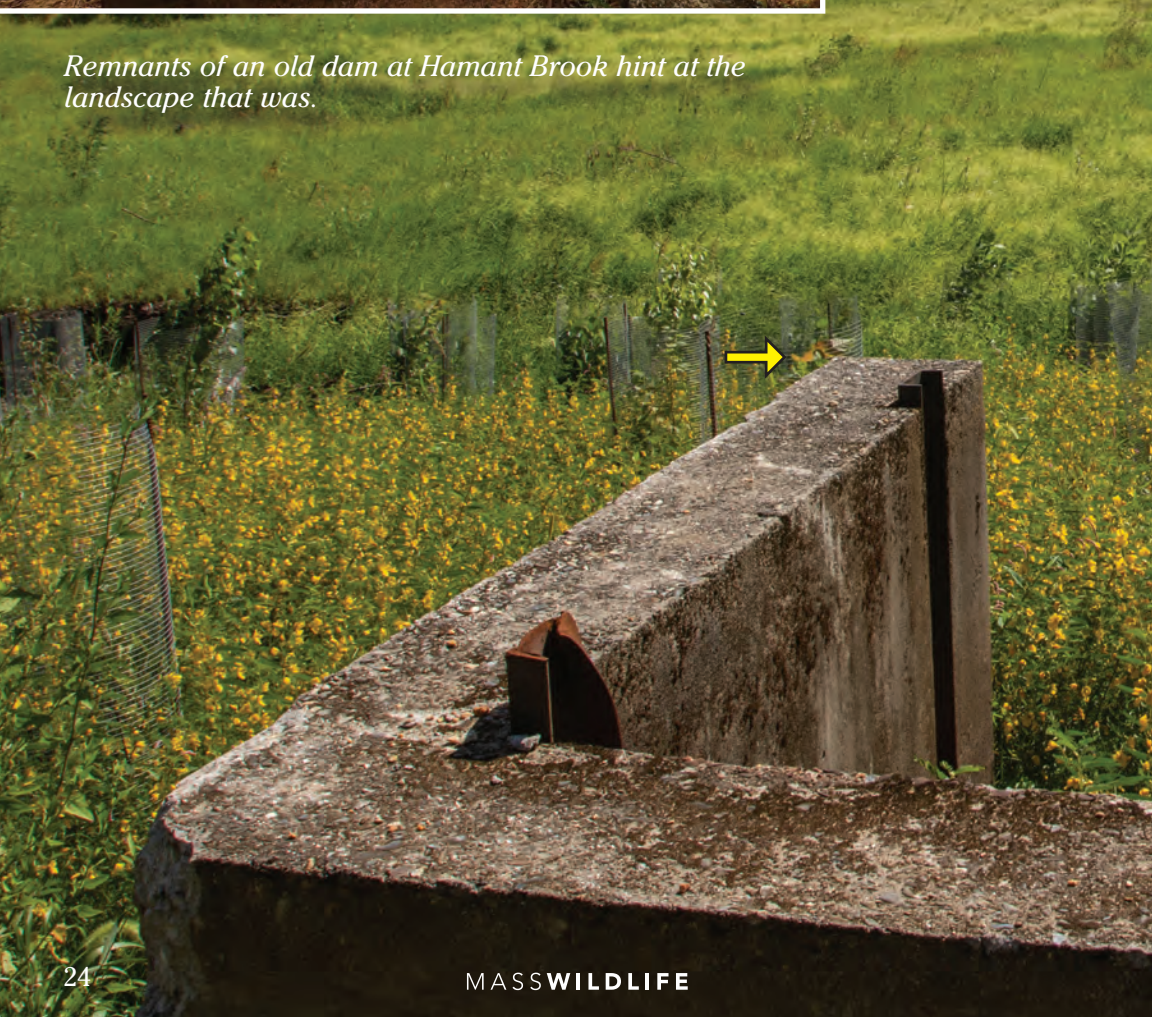
After





Photo by Caleb Slater/MassWildlife

Remnants of an old dam at Hamant Brook hint at the landscape that was.



After



Before

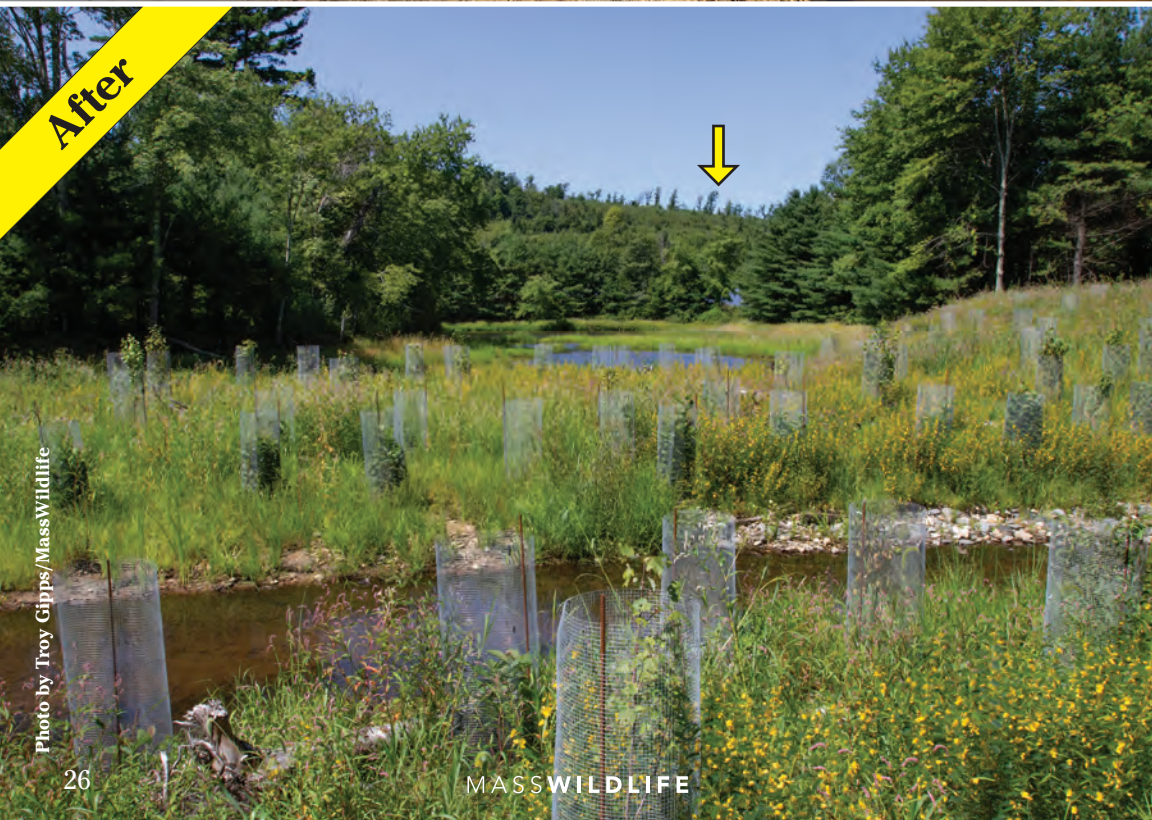
Photo by Caleb Slater/MassWildlife



Rapid regrowth stabilizes the new stream bed.

After

Photo by Troy Gippis/MassWildlife



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majority of voters in Sturbridge to pass the proposal at town meeting and then getting the required permits from the town, the state, and even the U.S. Army Corps of Engineers that took the better part of 10 years. But as I stand here today, I can see that it was all worth it. The dams and the shallow, warmwater ponds that they created are gone, replaced by this grassy meadow and the free-running trout stream. Over the next several decades this meadow will change as brush, shrubs, and trees take root in the fertile sediments that were pond bottom. Brook Trout will move down from the headwaters they now inhabit and wood turtles will move throughout the stream, their path no longer blocked by walls of concrete, and MassWildlife biologists will be here to document it. Our work here was not finished when the last of the dams was removed; we continue to monitor the project area to document the recolonization by native species and to guard against, and remove if necessary, exotic invasive species that may try to take advantage of this new landscape.

About the Author

Caleb Slater, Ph.D., is the Anadromous Fish Project Leader for MassWildlife. He has worked on the Hamant Brook project for 10 years.



Photo by Troy Gippis/MassWildlife



Photo by Bill Byrne/MassWildlife



Photo by Troy Gippis/MassWildlife

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