

Restoring a favorite boyhood haunt

RECLAIMING RARE LANDSCAPES AND A CONNECTION TO JOHN MUIR.

Lisa Gaumnitz

“To this charming hut, in the sunny woods, overlooking a flowery glacier meadow and a lake rimmed with white water lilies, we were hauled by an ox team across trackless carex swamps and low rolling hills sparsely dotted with roundheaded oaks...The sudden splash into pure wildness – baptism in Nature’s warm heart – how utterly happy it made us. Nature streaming into us, wooingly teaching her wonderful glowing lessons...” - John Muir, “The Story of My Boyhood and Youth”

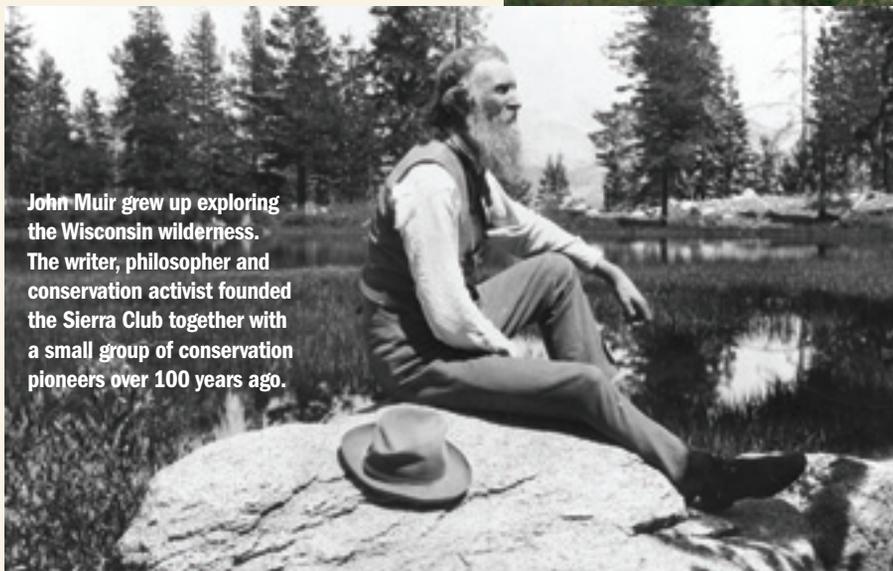
The Marquette County wilderness where John Muir received his “baptism in nature” in the mid-1800s as an 11-year-old Scottish immigrant provided the training ground and inspiration for the man who would become America’s most famous naturalist and conservationist and the father of our national park system.

Now, more than 165 years after Muir first explored the Wisconsin wilderness, and as the country celebrates the 100th anniversary of the National Park Service, Wisconsin partners are embarking on an audacious and urgent project to restore a favorite boyhood haunt and a wellspring of his gospel that nature has a spiritual as well as economic value and that wild places should be preserved for all of us.

Observatory Hill State Natural Area, a 300-foot outcropping that’s the highest point in Marquette County and the valleys and ridges radiating out from it, is being restored to the cedar glade and oak savanna landscape that Muir enjoyed.

Through timber harvest, prescribed burns, seedings of native plants and more management actions to unfold over coming years and decades, the partners hope to restore and preserve this example of one of the world’s rarest and most imperiled landscapes — oak savanna.

“Observatory Hill is special for local reasons but also its history with John Muir and being close to his boyhood home,” says Jon Robaidek, the DNR conservation biologist leading the effort. “We’re trying to bring it back to the landscape similar



John Muir grew up exploring the Wisconsin wilderness. The writer, philosopher and conservation activist founded the Sierra Club together with a small group of conservation pioneers over 100 years ago.

PHOTO COURTESY OF THE LIBRARY OF CONGRESS

to what he experienced when he first set foot in Marquette County.”

A place of beauty, a place to ponder

“Everybody needs beauty as well as bread, places to play in and pray in, where Nature may heal and cheer and give strength to body and soul alike.” - John Muir, “The Mountains of California”

Local historian Kathleen McGwin, who co-authored a book about Muir in Marquette County and is a driving force behind efforts to highlight the area’s natural and cultural history, is excited about the Observatory Hill restoration.

“It is opening up beautiful spaces for other things to come in...some of the beautiful plants and birds that Muir

and the other settlers saw,” she says. “I think Observatory Hill tells a story and the restoration will allow that story to be told better.”

The story begins 2 billion years ago when volcanic eruptions poured out lava that cooled into tough, crystalline mounds of rhyolite. Those mounds persisted through geologic time and survived the scouring of glaciers that retreated from the area 12,000 years ago.

Specialized glade community plants evolved on the thin soils on the top of the mounds along with red cedar trees and mosses, ferns, lichens and columbine. On the lower slopes, waves of grasses and wildflowers were interrupted here and there by stately red and white oaks



TYLER BRANDT

Jon Robaidek, a DNR conservation biologist, is leading efforts to bring back the landscape at Observatory Hill in Marquette County so that it is similar to the way John Muir knew it in his childhood.

with their low-hanging branches.

"It was a very special place for many people, starting with Native Americans," McGwin says.

There is evidence Native Americans used the hill for ceremonies and look-outs, and researchers have found petroglyphs etched into the rock that are probably 5,000 years old.

European settlers lit a lantern every night in a tower on the hill so travelers could find their way, and gathered there frequently.

"People were drawn to the hill," McGwin says. "They would find special plants and birds up there. They found peace and contentment."

Church picnics were held there and settlers would cut ferns from the hilltop to adorn the altars of their churches.

Muir would escape to Observatory Hill from the long, harsh work days on the family's Fountain Lake farm and the strict religious teachings of his father, Daniel.

"Excepting Sundays, we boys had only two days of the year to ourselves, the 4th of July and 1st of January...They were usu-

ally spent on the highest rocky hill in the neighborhood, called the Observatory..." Muir wrote in his autobiography.

"People say he liked to go up there and ponder life," says McGwin.

She remembers childhood excursions to the top with her father and is eager for future generations to experience the same panoramic view she did and to feel the joy their ancestors felt on Observatory Hill.

From seeds planted in Wisconsin, a national park system grows

"Within 3 to 4 hours almost every quarter section of government land was taken up... and in a very short time the new country began to look like an old one..." - John Muir, "The Story of My Boyhood and Youth"

Muir could see the landscape he loved disappearing before his eyes. His own family quickly exhausted the soil on the family farm and bought new land a few miles away. More settlers poured into the area and carved their farms from the wilderness.

"As Muir saw it, Wisconsin at the moment of his arrival was filled with Origi-

nal Nature. In its wild beauty one could still see the morning of God's creation," writes William Cronon, a UW-Madison environmental historian in "Landscape and Home: Environmental Traditions in Wisconsin." "Every effort to improve the family farmstead was one more nail in nature's coffin."

The passion Muir had learned in the Wisconsin landscape would lead him on a lifelong search for still wilder places where the hand of God remained untarnished, Cronon writes.

It also would stir in him the desire to preserve wild places. Muir tried several times to buy the Fountain Lake farm his family originally homesteaded.

"Then and there the national park ideas had its first small beginnings in his thoughts," wrote his Pulitzer Prize-winning biographer, Linnie Marsh Wolfe.

Muir became one of the first and most eloquent advocates for the idea of national parks. His articles about these special places in the major media of the day; his lobbying efforts and founding of the Sierra Club; and even a camping trip with President Theodore Roosevelt



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The Dr. Seuss book-like look of trees on Observatory Hill today is the result of trees having been previously crowded.

eventually helped secure protection for Yosemite and Sequoia national parks in California, Glacier Bay in Alaska, Mount Rainier in Washington, and the Grand Canyon in Arizona, among other sites.

A window of opportunity

“As soon as the oak openings in our neighborhood were settled, and the farmers preventing running grassfires, the grubs grew up into trees and formed tall thickets so dense that it was difficult to walk through them and every trace of the sunny openings vanished.” - John Muir, *“The Story of My Boyhood and Youth”*

By the time Gov. Tommy Thompson designated Observatory Hill a state natural area in 1988, the red cedars had overcrowded the hilltop and the hillsides were covered with a dense woodland of tall, skinny oak trees, shagbark hickory and basswood that shaded out the native savanna plants and wildflowers Muir loved. Invasive species, including, in more

recent years, garlic mustard and Japanese barberry, had gained a foothold.

Now there is a growing effort to restore Observatory Hill and other natural areas with fire-dependent landscapes like prairies, oak savannas and barrens. Only a fraction of such landscapes present at statehood remain and many are degraded or threatened by invasive plants.

“There’s still a window of opportunity for these sites,” says Matt Zine, the DNR conservation biologist who coordinates statewide management of natural areas. “They are hanging on and the invasives are not yet insurmountable.”

The garlic mustard and other invasive plants already present at Observatory Hill State Natural Area make restoration a bigger challenge and will require extra effort and resources.

“These are complicated sites and there is no cookbook for their restoration,” Zine says. “Each site is different and you use general restoration principles and

what you’ve learned to make the best judgment.

“We know it will be hard but to do nothing would mean it would surely continue to decline. We decided to intervene and see if we could get it going in the right direction.”

Restoration work

“Nature is ever at work building and pulling down, creating and destroying, keeping everything whirling and flowing, allowing no rest but in rhythmical motion, chasing everything in endless song out of one beautiful form into another.” - John Muir, *“Our National Parks”*

On a warm day in September 2015, Robaidek and visitors tour the area while certified loggers harvest trees as part of the first phase of restoring Observatory Hill State Natural Area.

He is a fitting choice to lead the mission. Like Muir, he grew up on a farm and forged some of his deepest connections with nature while working the landscape and hunting, and he’s been managing or restoring habitat for most of the last quarter-century in central Wisconsin as a DNR wildlife biologist and now as a natural area manager.

“It’s what I enjoy the most,” says Robaidek.

The Observatory Hill restoration involves cutting down oak as well as cherry, hickory and maple trees on 130 of the 180 acres and leaving larger, healthier oaks scattered across the landscape to create the look and structure of an oak savanna. They’re harvesting in the fall instead of winter so the loggers can more safely use the machinery to conduct a “whole tree” harvest on the sloping hillside.

Whole tree harvest removes the whole tree, not just the timber, to make getting around the site easier for future management actions. As well, reducing the branches and leaves left behind will make prescribed burns safer in coming years and immediately gives the area the structure needed for a savanna.

The second restoration phase calls for DNR to selectively harvest cedars and other hardwoods from the hilltop by hand to restore the view and allow more sunlight to reach the understory plants.

“We have a lot of work ahead in terms of the restoration,” Robaidek says. “Seeding, regular burn regimes, fighting invasives and providing a hospitable situation for native plants that had fire as a driving force.”

As well, they’ll have to stay on top of the trees that will sprout from the stumps

to make sure the savanna doesn't fill in again.

"As we do the prescribed burns people will start to see a different suite of bird species, and bird and plant species that are rare," Robaidek says.

The red-headed woodpecker, the poster child of savanna, is expected to benefit, along with species like bobolinks, whip-poor-wills and woodcock, and rare species like the slender glass lizard and the eastern red bat.

"Hunters will still see deer, and turkey may be more abundant because there's more insects with a savanna and there will still be a big acorn drop," Robaidek says.

But he cautions that visitors to Observatory Hill won't see the changes overnight.

"I'm going to start the process here but it's going to be handed off to somebody else to keep it going. It's important to do this and we're going to give it our best shot. You hate to lose anything, and once it's gone it might be gone forever."

Resurrecting a summer paradise for birds

"The Wisconsin oak openings were a summer paradise for song birds, and a fine place to get acquainted with them, for the trees stood wide apart, allowing one to see the happy homeseekers as they arrived in the spring..." - John Muir, "The Story of My Boyhood and Youth"

Eight months after Robaidek led his visitors to the top of Observatory Hill, he returns with them to check on the progress and spray garlic mustard.

The group picks carefully over a few logs lying in the staging area and walks along an open landscape with scattered trees that look like something out of a Dr. Seuss book — tall trunks, no or few lower limbs, and skinny canopies. The trees' previously crowded conditions constrained their growth; with more room and sunlight, their canopies may grow.

The valley floor is bright green, covered with a spidery native plant called bed straw that is taking advantage of the increased sunlight. Here and there are patches of yellowing plants with droopy leaves, the handiwork of volunteers who came in May to help spray and pull garlic mustard.

"Right now there are a lot of young garlic mustard plants because of the flush of native and nonnative plants after the harvest," Robaidek says. Garlic mustard will be a challenge, but one he

hopes lessens over time because the invader doesn't prefer open savanna.

Robaidek points out Canada wild rye, a native grass that produces roots quickly, will help control erosion. It was one of more than 40 native plant species he and state natural area crew member Josh Karow sowed over the winter, along with plants like little and big bluestem, Indian grass, prairie dropseed, showy goldenrods and purple prairie and round-headed bush clovers.

Observatory Hill is not going to be exactly the same as Muir experienced; as the great naturalist himself famously observed, everything is connected, so it is much easier to tear nature apart than to put it back together.

The visitors stop at the sound of a tap, tap, tapping.

"It does sound right for the red-headed woodpecker," Robaidek says, and looks in the direction of the sound.

Woodpeckers flush from a tall, dead tree and one flies right over the group into another snag. "We just saw three, maybe four of them," he says. "That is a good sign — especially seeing numbers of them."

Lisa Gaumnitz writes for the DNR's Natural Heritage Conservation program.

HOW YOU CAN HELP

Join in volunteer workdays to help restore Observatory Hill State Natural Area. Contact Volunteer Coordinator Jared Urban at Jared.Urban@Wisconsin.gov or (608) 267-0797.

Purchase limited edition prints and posters of "Through the Eyes of John Muir," an original watercolor painting depicting the native plants and animals of John Muir's boyhood home. Go to dnr.wi.gov and search "John Muir" to see image and order.

Make a tax-deductible donation to help restore the site. Donate online by going to dnr.wi.gov and searching "NHC." Click on the donate button and choose "State Natural Areas - Observatory Hill" as the donation fund, or write a check payable to the "Endangered Resources Fund," write "Observatory Hill State Natural Area" in the memo line and send to:

Wisconsin DNR
Bureau of Natural Heritage Conservation
P.O. Box 7921
Madison WI 53707



LEARN MORE ABOUT JOHN MUIR IN 2016 AND WALK IN HIS FOOTSTEPS

National Park Service 100th Anniversary Celebration, Aug. 6, John Muir Memorial Park, Montello

Speakers from the NPS, historians, exhibits, hikes, field trips and more explore Muir's role in creating our national parks. Pre-registration is required. www.iceagetrail.org/nps100/

Wisconsin's John Muir: A Travelling Exhibit and Reading Program

Public libraries and historical societies in 25 communities host the Wisconsin Historical Society's free Muir exhibit. As well, the society has compiled Muir's most famous writings online. Search wisconsinhistory.org for "Wisconsin's John Muir."

John Muir Memorial Park and Ice Age Trail

Part of the original Muir homestead has been preserved as a county park and features a 2.3-mile segment of the Ice Age Trail. From Montello take County Road F, 7 miles south to the park entrance on the east.

Eggleston/Muir Natural Heritage Land Trust acquisition

More of the original Muir homestead is now open to the public through the acquisition of the former Bessie McGwin Eggleston farm. Enjoy a historical kiosk, preserved portion of the original barn wall, and bluebird trail. Just north of John Muir Memorial Park on County Road F.

Marquette County John Muir Nature and History Route

Explore 22 sites that directly touched Muir's life or tell what life was like in Marquette County in the 1800s. All sites are marked with signs and can be accessed with a QR code. View the app on your smartphone or personal computer. Go to muirboyhoodhome.toursphere.com.

Marquette County Saunter Sites

John Muir encouraged people to saunter, not hike so enjoy leisurely strolls through 20 sites including boyhood haunts and prairies, wetlands, woodlands and lakes he explored. Download the brochure at muirboyhoodhome.toursphere.com or find at most Marquette County businesses.