

FORESTS

A tree measures time in decades—even centuries. For the span of its life, a tree provides wildlife with food and shelter, helps keep water sources clean, offers shade and solace to people and soaks up climate-altering carbon from the atmosphere. Even after its life, that tree continues to support jobs and provide materials for the everyday needs of our lives; or, it is absorbed into the ecosystem, sustaining life through the natural process of decay.

We live surrounded by the memories of trees, and our future depends on them as well.

20 MILLION ACRES STRONG

Just over half of Michigan is forested. These 20 million acres represent a vital part of Michigan's nature, providing a home to iconic wildlife like the gray wolf, black bear and migratory songbirds that fill the trees with color in the spring. Michigan's forests are also an important legacy for people. They support over 100,000 jobs and a \$20 billion economy. And, they are core to our recreational heritage—many Michiganders have fond early memories of walks in the woods.

AN INVESTMENT IN OUR FUTURE

Michigan's forests provide so many benefits to nature and people—and they have even more to give. In a changing climate, forests represent a powerful carbon “sink” that can offset greenhouse gas emissions. Healthy forests store more carbon, but the health of Michigan's forests has been challenged by a complex history of ownership and intensive use, as well as encroaching pests and disease.

The Nature Conservancy (TNC) is demonstrating sustainable, data-driven forest management practices—and encouraging others to use them as well—to ensure Michigan's forests remain healthy, resilient and productive for generations to come.

COVER: Northern hardwood forest at TNC's McMahon Lake Preserve. © Jason Whalen/Fauna Creative; RIGHT: Eastern red-backed salamanders are a common inhabitant of Michigan's forests. © Anthony Rodgers/TNC Photo Contest 2019



GOALS

- An increased pace and scale of protection and carbon storage in forests.
- Greater resilience of Michigan's forests to future climate impacts.
- Improved forest biodiversity and resistance to disease and pests.
- A more sustainable forest economy based on well-managed forests.



OUR STRATEGIES

PROTECTION

TNC protects Michigan's forests in a variety of ways, including land acquisition, conservation easements and many partnerships. For example, we have partnered with the U.S. Forest Service for many years on tree plantings and other stewardship efforts in the Ottawa and Hiawatha National Forests. Regardless of who owns or manages Michigan's forests, protected networks of climate-resilient lands and waters benefit us all.

DEMONSTRATION

TNC uses our protected forest reserves in Michigan to demonstrate how practices such as selective harvesting and tree planting can be used to increase forest health and biodiversity. In this way, we can help forests resist the impacts of a changing climate and mitigate rising temperatures through enhanced carbon storage.

INFLUENCE

TNC works with state and federal agencies, Indigenous communities and private landowners to scale up the conservation of healthy Michigan forests. We share our results and knowledge widely to elevate awareness of the economic, ecological and climate mitigation potential of sustainable forestry practices; to promote Forest Stewardship Council (FSC) certification for managed forestlands; and to encourage investment in a more sustainable forest products industry.

SCIENCE

Science is the foundation of all our work, from climate science research projects to quantitative metrics for forest health and climate sensitivity. We map priorities and other research, including TNC's national resilient and connected network study (www.nature.org/naturalhighways), to prioritize forest protection projects.

ABOVE, LEFT: Two Hearted River. © Drew Kelly; ABOVE, RIGHT: Ovenbird in forest. © Jason Major

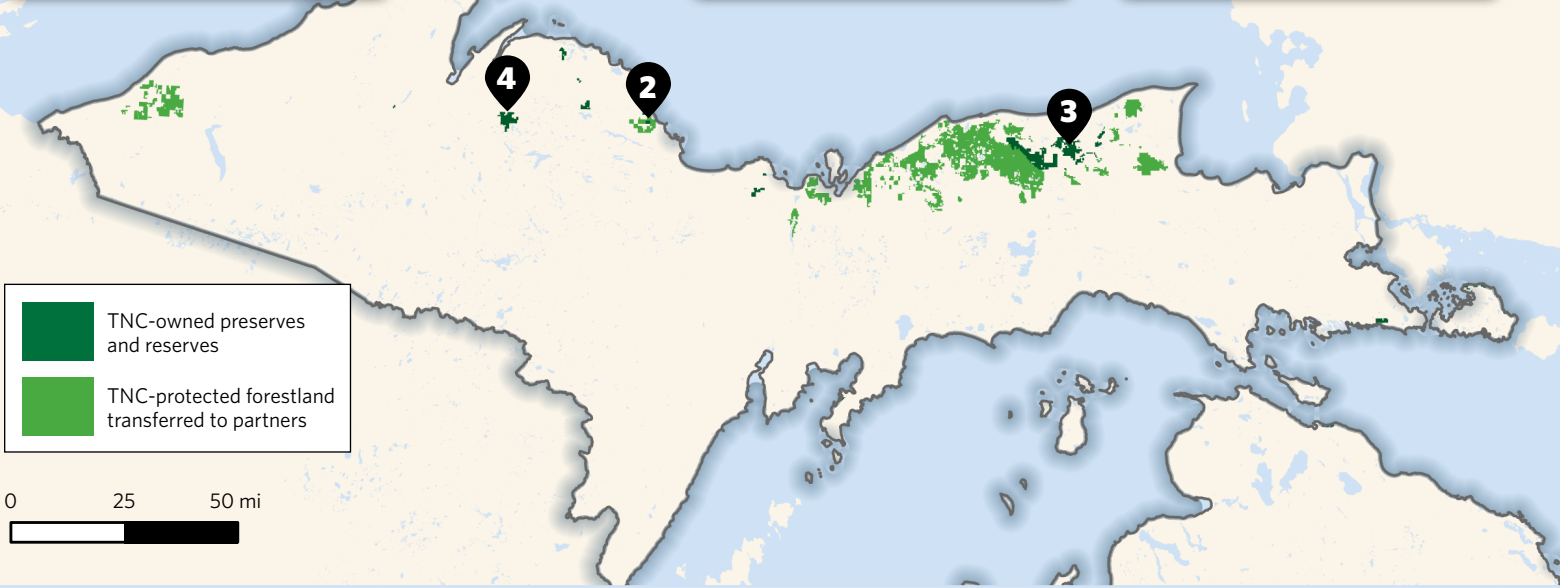


CARBON CONNECTIONS

TNC's American Forest Carbon Initiative (AFCI), a partnership with the American Forest Foundation, engages landowners in forest protection and natural climate solutions.

- TNC's **Working Woodlands** initiative assists private landowners (of properties greater than ~2000 acres) with forest management planning, becoming FSC-certified and enrolling in carbon markets.
- The **Family Forest Carbon Program** is an option for owners of smaller properties, helping them improve management practices and grouping properties to qualify them for carbon incentives.

ABOVE: Young white pine in Michigan's Upper Peninsula. © Drew Kelly



KEY PROJECTS

Michigamme Highlands

These 1,200-square-mile Upper Peninsula highlands are some of the most resilient lands in Michigan, featuring a range of habitats and topographies that can sustain biodiversity in a changing climate. Here, TNC aims to create a “conservation corridor” of lands protected by TNC, partners and those committed to sustainable forest practices (such as through conservation easements). This will give wide-ranging species such as moose and deer the large stretches of habitat they need to thrive.

Wilderness Lakes Reserve

Protected in 2017, and then nearly doubled in size in 2021, this reserve now features over 10,000 acres of spectacular forests interspersed with high-quality wetlands and glacial lakes within the Michigamme Highlands (photo, right). It is adjacent to the 8,459-acre Craig Lake State Park, creating an even larger protected area. It was the first of TNC’s reserves to be enrolled in a carbon market.



HOW DOES A “CARBON MARKET” WORK?

Restoration or improved management of a forest can increase its carbon sequestration, or storage. When that forest is enrolled in a carbon market, credits representing this additional benefit can be purchased by buyers seeking to offset unavoidable greenhouse gas emissions, while also investing in healthy forests. These carbon benefits are verified by an independent third party to assure credit buyers that real, meaningful carbon storage is being achieved. (1 credit = 1 metric ton of carbon dioxide equivalent.) As just one tool in a much larger climate action toolbox, carbon offsets must be combined with other natural climate solutions, emissions reductions and an accelerated shift to clean energy and low-carbon materials.

ABOVE (MAP): Forestland in the Upper Peninsula that TNC has protected through years of work. © Stephanie Hicel/TNC; MAP INSETS, LEFT TO RIGHT: © Jason Whalen/Big Foot Media; © Dick Huey; © Jason Whalen/Fauna Creative; ABOVE, RIGHT: Dense northern forests are broken up by lakes and rivers at TNC’s Wilderness Lakes Reserve. © Dietrich Ludwig



THE BIG U.P. DEAL: A Case Study in Forest Protection

In 2005, TNC and the State of Michigan—with the support of the Michigan Natural Resources Trust Fund, the Federal Forest Legacy Program and many generous donors and partners—protected over 270,000 acres of some of the most spectacular forests, lakes, rivers and headwaters in Michigan. This vast public-private partnership, dubbed the “Big U.P. Deal,” is a conservation project that keeps on giving—providing a strong foundation for learning, inspiration and impact as TNC moves forward into an exciting new chapter for resilient forests in Michigan.

For example, the Big U.P. Deal led to the creation of the Two Hearted River Forest Reserve, TNC’s first reserve in Michigan (photo, above), which acts as a “living laboratory” where we can study the practices that make forests healthier, while also supporting sustainable forestry jobs and promoting climate benefits.

ABOVE: Forester Jon Fosgitt takes inventory at the Two Hearted Reserve. © Drew Kelly

BY THE NUMBERS:

- **271,338 acres** protected in total, across eight counties.
- TNC’s **23,338-acre** Two Hearted River Forest Reserve established.
- **248,000 acres** of working forest easements held by the state, ensuring sustainable forestry practices while protecting the local economy.
- More than **52,000 acres** of wetlands protected, which filter water and help keep rivers clean.
- Approximately **100,000 acres** of protected land that “buffers” (borders) various state forests and Pictured Rocks National Lakeshore.



GLOBAL CONNECTION

TNC science shows that forests have the ability to contribute about a quarter of the climate solutions we need to keep global temperature increases below 1.5 degrees Celsius—through their protection, improved management and restoration. But it’s a race against time: Every year, 32 million acres of the world’s forests are lost.

Around the globe, TNC is working to protect forestlands for people, biodiversity and climate through efforts like our Plant a Billion Trees campaign—so that future generations can continue to experience the vital benefits forests provide to healthy lands, clean air and water, and the climate all life depends on.

LEFT: In 2021, TNC protected 260,000 acres in the Maya Forest of Belize, a global biodiversity hotspot that is home to over 400 species of birds and one of the largest populations of jaguars in Central America. © Christopher Griffiths



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