

Eastern Brook Trout Joint Venture Business Plan 2014 - 2018



Eastern Brook Trout
JOINT VENTURE
A Fish Habitat Partnership

"Conserving the health of your waters"

March, 2014

Executive Summary

Wild Brook Trout serve as excellent indicators of clean water and healthy aquatic systems. Unfortunately, poor land and water use practices and the establishment of competing non-native fish species have impacted and changed the landscape, greatly diminishing wild Brook Trout throughout its native eastern range. Based on an unprecedented range-wide status assessment completed in 2005, the Eastern Brook Trout Joint Venture estimates less than 24% of the watersheds that historically supported wild Brook Trout remain intact. However, the plight of wild Brook Trout is being reversed by collaborative efforts across the region to protect, enhance, and restore the aquatic habitat that sustains them.

The Eastern Brook Trout Joint Venture is firmly committed to facilitating integrated approaches to conserving healthy coldwater aquatic resources and fishable wild Brook Trout populations. We meet this commitment by building partnerships, among citizen groups, organizations, and scientists, to address priority Brook Trout conservation needs, create valuable decision-support tools, and fund mission-focused projects.

To achieve its vision, the Eastern Brook Trout Joint Venture is focusing on four conservation priorities: 1) eliminating fish passage barriers in catchments where habitat fragmentation is the primary threat to wild Brook Trout; 2) implementing best practices in catchments where poor management of riparian and in-stream habitat are top stressors for wild Brook Trout; 3) establishing a long-term monitoring program that tracks wild Brook Trout population trends across its historic eastern range; and, 4) raising awareness on the plight of wild Brook Trout among targeted audiences. In collaboration with key partners, we will direct \$12 million towards these conservation priorities over the next five years.

Our Brook Trout Heritage

The Brook Trout is an American symbol of persistence, adaptability, and the pristine wilderness that covered North America prior to European settlement. It is the only native trout that inhabits the cold clear streams of the eastern United States. It is the state fish in many eastern states and is prized by recreational anglers. It is truly a heritage fish species.

Unfortunately, poor land and water use practices and the establishment of competing non-native fish species have impacted and changed the landscape, greatly diminishing wild Brook Trout throughout its native eastern range. Based on an unprecedented range-wide status assessment completed in 2005, the Eastern Brook Trout Joint Venture estimated less than 24% of the watersheds that historically supported wild Brook Trout in the eastern portion of the United States remain intact. In this region of the country, most wild Brook Trout are relegated to headwater streams, where human disturbance is minimal and forest cover is still prevalent. Unable to thrive in poor water quality or degraded habitat, wild Brook Trout are excellent indicators of clean water and healthy aquatic systems. Their disappearance within a watershed indicates environmental degradation. The documented decline of wild Brook Trout throughout their eastern range serves as a warning about the health of our waters and watersheds.

The good news is the plight of wild Brook Trout is reversible. Through coordinated and focused efforts, we have a unique opportunity to change the declining trend for wild Brook Trout by collaboratively conserving aquatic habitat and improving water quality thereby ensuring we have healthy waters that sustain outdoor recreational activities, generate economic vitality, and provide inherent values for generations to come.

Conserving Wild Brook Trout

Building on its landmark assessment work, the Eastern Brook Trout Joint Venture has developed a roadmap for wild Brook Trout conservation that is grounded in science and guided by its mission to facilitate integrated approaches to conserving healthy coldwater aquatic resources and fishable wild Brook Trout populations. We advance this mission by building partnerships among citizen groups, agencies, and scientists that are centered on priority conservation needs of wild Brook Trout. Through our network of the region's top scientists and fisheries managers, we deliver valuable decision-support tools to our partners, which include prioritized landscapes and proven techniques for protecting, enhancing, and restoring healthy Brook Trout populations. Our partnership also directs funding and leverages other resources towards mission-focused projects.

Organizational Strength

A primary source of the Eastern Brook Trout Joint Venture's strength comes from its thirty-three formal partners (Appendix I). This synthesis of state, federal, tribal, and non-governmental partners provides us with the ability to streamline ways to collect input from dozens of distinct organizations and reach agreement on crucial conservation actions across jurisdictional lines. The partnership's dedication to dynamic processes and adaptive management allows conservation practices and indicators of success to be continually improved upon. The Eastern

Brook Trout Joint Venture is also well positioned to actively link Brook Trout conservation to other ecological, social, and economic strategies established by partners and stakeholders.

Principal Conservation Services

The Eastern Brook Trout Joint Venture facilitates collaboration among the conservation community by completing landscape-level scientific assessments on the status of wild Brook Trout, along with identifying the major threats they face, and using the results of these assessments to establish key priorities that serve as the framework for the coordination of strategic conservation actions. We provide our partners with vital decision-support tools and data management systems that are web-based and readily accessible. The Eastern Brook Trout Joint Venture also fosters outreach efforts that build stewardship support for conserving wild Brook Trout and we direct resources to essential on-the-ground wild Brook Trout conservation projects. Our partnership steadfastly supports the sovereign rights and statutory authorities of our participating partner organizations and we aid cross-sector discussions and scientific review of important policy issues. However, the Eastern Brook Trout Joint Venture only engages in voluntary non-regulatory conservation actions and as such, does not serve in an advocacy role on regulatory matters.

Conservation Achievements

At a minimum, the impact of Eastern Brook Trout Joint Venture's integrated approach to wild Brook Trout conservation has resulted in our partners' collaboratively restoring wild Brook Trout populations in twelve subwatersheds where they had been extirpated, strengthening wild Brook Trout populations in seventy-seven subwatersheds, and improving wild Brook Trout to intact status in fifteen subwatersheds. Our partnership also had a direct hand in facilitating the implementation of seventy-six projects that received \$2.9 million in funding from the US Fish and Wildlife Service, which was matched with \$14.5 million provided by three hundred sixty-six partners, a \$1 to \$5 leveraging ratio. These projects were supported by a diverse mix of contributing partners as 35% were nongovernmental organizations, 20% were state agencies, 17% were local agencies, 11% were businesses, 10% were academia, and 9% were federal agencies. Collectively these projects enhanced 200 miles of in-stream habitat and 157 acres of lentic habitat; restored 14 miles and 341 acres of riparian habitat; and, reconnected 205 miles of stream habitat by removing 78 fish passage barriers. The estimated socioeconomic benefit resulting from these projects is \$232 million.

Conservation Priorities

To achieve its vision of success, the Eastern Brook Trout Joint Venture is focused on addressing four conservation priorities:

- 1. Eliminating anthropogenic fish passage barriers in catchments where habitat fragmentation is the primary threat to wild Brook Trout.**
- 2. Implementing best practices in catchments where poor management of riparian and in-stream habitat is the top stressor for wild Brook Trout.**
- 3. Establishing a long-term monitoring program that tracks wild Brook Trout population trends across its historic eastern range.**
- 4. Raising awareness on the plight of wild Brook Trout among targeted audiences.**

Action Strategies for Addressing Conservation Priorities

Fish Barrier Removal Strategy: Habitat fragmentation can strongly influence the perseverance of wild Brook Trout populations by limiting dispersal, thereby reducing gene flow, and preventing access to critical habitats that support different phases of their life history. The Eastern Brook Trout Joint Venture will collaborate with key partners to establish a priority list of catchments where anthropogenic fish passage barriers are identified as the primary threat to conserving wild Brook Trout and we will facilitate the elimination of the impassable barriers within these priority catchments by providing support to regional and local groups willing to undertake the work.

- Key partners: State Agencies; US Fish and Wildlife Service; USDA Forest Service; NOAA Fisheries; Natural Resource Conservation Service; Federal Highway Commission; Federal Energy Regulatory Commission; National Resources Defense Council; Chesapeake Bay Program; Watershed Associations; Conservation Districts; Water Suppliers; American Rivers; Trout Unlimited; and, Federation of Fly Fishers.
- Budget need: \$100,000 per barrier; fish barrier removal expenditures to date \$900,000 per year consisting of \$150,000 in EBTJV-related funds and \$750,000 in partner funding.
- Funding sources to be targeted: US Fish and Wildlife Service – National Fish Passage Program and National Fish Habitat Partnership Allocation; National Fish and Wildlife Foundation – Bring Back the Natives, Chesapeake Bay Stewardship Fund, and Eastern Brook Trout Program; Natural Resource Conservation Service – Emergency Watershed Protection Program; and, Wildlife Conservation Society – Climate Adaptation Fund.
- Dashboard benchmarks: The number of fish passage barriers removed from priority-designated catchments, increases in patch size that result from fish barrier removal, and development of decision support tools.

Riparian and In-Stream Habitat Improvement Strategy: Poor management of riparian and in-stream habitat is a significant stressor to wild Brook Trout as it can result in warmer water temperatures, higher rates of sedimentation, and greater nutrient loading. The Eastern Brook Trout Joint Venture will collaborate with key partners to establish a priority list of catchments where poor management of riparian and in-stream habitat is identified as the primary threat to conserving wild Brook Trout and we will facilitate the implementation of best practices within these priority catchments by providing support to regional and local groups willing to undertake the work.

- Key partners: State Agencies; Natural Resource Conservation Service (NRCS); State NRCS Councils; County Extensions; County Conservation Districts; Watershed Associations; Agriculture Organizations; Forestry Organizations; Water Suppliers; Private Landowner Organizations; Trout Unlimited, Federation of Fly Fishers, and Theodore Roosevelt Conservation Partnership .

- Budget need: Riparian habitat – \$6,500 per riparian acre; riparian habitat enhancement expenditures to date \$250,000 per year consisting of \$50,000 in EBTJV-related funds and \$200,000 in partner funding. In-stream habitat – \$44,000 per stream mile; in-stream habitat improvement expenditures to date \$900,000 per year consisting of \$150,000 in EBTJV-related funds and \$750,000 in partner funding. Total expenditures to date \$1.15 million per year consisting of \$200,000 in EBTJV-related funds and \$950,000 in partner funding.
- Funding sources to be targeted: US Fish and Wildlife Service – Partners for Fish and Wildlife Program and National Fish Habitat Partnership Allocation; and, US Department of Agriculture – Conservation Reserve Program, Wildlife Habitat Incentive Program, Environmental Quality Incentive Program, Conservation Reserve Enhancement Program, and Cooperative Conservation Partnership Initiative; National Fish and Wildlife Foundation – Appalachian Forest Renewal Initiative and Conservation Partners Program.
- Dashboard benchmarks: Acreage of improved riparian habitat and stream miles of Brook Trout Habitat enhanced or restored.

Wild Brook Trout Monitoring Strategy: The Eastern Brook Trout Joint Venture has identified the need to detect wild Brook Trout population trends across its eastern U.S. range because it provides insights to their proclivity for persistence and resilience. Recent research in the use of patch-based metrics in conjunction with a monitoring framework that combines fixed annual “sentinel” patches and a rotating panel design for other patches has the potential to be a cost effective tool for managers to detect trends in wild Brook Trout populations. The Eastern Brook Trout Joint Venture will collaborate with key partners to establish a pilot program that further tests this monitoring.

- Key partners: State agencies; Chesapeake Bay Program; US Geological Survey; USDA Forest Service; and, Trout Unlimited.
- Budget need: \$250,000 per year or \$50,000 per year for each participating state.
- Funding sources to be targeted: US Fish and Wildlife Service – Competitive State Wildlife Grants; and, National Fish and Wildlife Foundation – Bring Back the Natives, Chesapeake Bay Stewardship Fund, and Eastern Brook Trout Program; Patagonia’s World Trout Initiative; Orvis; and, Cabela’s.
- Dashboard benchmarks: Number of states monitoring wild Brook Trout population trends; summary of annual and multi-year wild Brook Trout population trends.

Wild Brook Trout Awareness Campaign Strategy: Building awareness, ownership, and empowerment leads to stewardship behavior. To initiate this building process, the Eastern Brook Trout Joint Venture will lead an integrated education and outreach campaign that raises awareness about the plight of wild Brook Trout among anglers and outdoor/environmental reporters. We will develop a “state of the species” report and a public “dashboard” that measures the impacts of implementing each of the partnership’s priority conservation strategies.

- Key partners: State agencies, Trout Unlimited, Federation of Fly Fishers, The Izaak Walton League of America, American Sportfishing Association, Outdoor Writers Association of America, Recreational Fishing and Boating Foundation, Atlantic Coastal Fish Habitat Partnership, and Southeast Aquatic Resource Partnership.
- Budget need: \$100,000 per year.
- Funding sources to be targeted: US Fish and Wildlife Service - National Fish Habitat Partnership Allocation; National Fish and Wildlife Foundation – Bring Back the Natives and Eastern Brook Trout; US Environmental Protection Agency – Environmental Education Grants; and, Patagonia’s World Trout Initiative.
- Dashboard benchmarks: Number of email subscribers; open rate of emails; number of links clicked from email and social media posts; number of news stories about EBTJV-related conservation actions; and, website traffic.

Summary of Annual Funding Needs for Priority Conservation Action Strategies

Priority Conservation Action Strategy	Annual Funding Need
Fish Barrier Removal	\$ 900,000
Riparian and In-Stream Habitat Improvement	\$1,150,000
Monitoring Wild Brook Trout	\$ 250,000
Wild Brook Trout Awareness Campaign	\$ 100,000
Total	\$2,400,000

The Eastern Brook Trout Joint Venture Coordinator will take the lead in facilitating the development of annual work and funding plans for each Priority Conservation Action Strategy, with oversight provided by the Steering Committee.

Appendix I. Signatories to the Eastern Brook Trout Joint Venture Memorandum of Understanding

American Fisheries Society
American Fly Fishing Trade Association
American Sportfishing Association
Bureau of Land Management
Connecticut Department of Environmental Protection
Eastern Band of Cherokee Indians
Federation of Fly Fishers
Georgia Department of Natural Resources
Izaak Walton League of America
Maine Department of Inland Fisheries and Wildlife
Maryland Department of Natural Resources
Massachusetts Division of Fish and Wildlife
National Park Service
New Hampshire Fish and Game Department
New Jersey Department of Environmental Protection, Division of Fish and Wildlife
New York State Department of Environmental Conservation
North Carolina Wildlife Resources Commission
Office of Surface Mining
Pennsylvania Fish and Boat Commission
Rhode Island Department of Environmental Management
Sea Run Brook Trout Coalition
South Carolina Department of Natural Resources
Tennessee Wildlife Resources Agency
The Trust for Public Lands
Trout Unlimited
US Environmental Protection Agency
US Fish and Wildlife Service, Region 5
USDA Forest Service, Eastern & Southern Regions
Vermont Department of Fish and Wildlife
Virginia Department of Game and Fish
Western Pennsylvania Conservancy
West Virginia Department of Natural Resources
Wild Trout Flyrodders