Eastern Brook Trout JOINT VENTURE
A Fish Habitat Partnership

EBTJV Habitat News

EBTJV announces $240,604 in funding for five Brook Trout habitat conservation projects.

A waterfall prevents downstream rainbow trout from recolonizing a Brook Trout restoration reach on Moore Springs Branch, in Great Smoky Mountains National Park. Matt Kulp, 2022.

EBTJV's FY24 projects are located in Maine, Vermont, Massachusetts, Maryland, and North Carolina.

The Eastern Brook Trout Joint Venture (EBTJV) is proud to announce that five Brook Trout conservation projects were awarded a total of $240,604, through the National Fish Habitat Partnership and US Fish and Wildlife Service, for 2024.

These projects exemplify the kinds of science-based conservation and restoration activities that will enhance or restore populations of wild Brook Trout. These projects pull in multiple partners - and over $800,000 in other funding contributions - to ultimately improve fishable populations of Brook Trout by improving habitat complexity and riparian cover of cold water habitats, removing barriers to connectivity, controlling non-native species, and restoring (repopulating) Brook Trout to streams where they had been extirpated.

Three of the five projects will remove or make steps towards removing or remediating a total of five barriers to fish passage, including two dams, two culverts, and one vented ford. These connectivity initiatives are important to supporting or improving population persistence, genetic integrity, and climate resilience of wild Brook Trout.

A fourth project will use genetic information to guide selection of source stock to translocate 600 native Brook Trout back into over 2 miles of stream in the Great Smoky Mountains National Park, following removal of non-native rainbow trout.

A fifth project will work with the Maine Army National Guard to transport large wood material to a restoration site on a Downeast Maine river, via helicopter. This will allow the partners to implement multiple forms of wood addition in drainage areas otherwise difficult to access, and create a more habitat diverse system that improves sediment transport, pool and cover formation, and in-stream temperatures.

Congratulations to the Great Smoky Mountains National Park, Project SHARE, The Organization for the Assabet Sudbury and Concord Rivers, and Trout Unlimited.

For more information on each of this year's projects, please visit the FY24 projects page.

Funding information:
From FY 2006 through FY 2024, the US Fish and Wildlife Service allocated $4.3 million to the EBTJV in support of 107 on the ground brook trout conservation projects through National Fish Habitat Partnership funding. Over the same period, the FWS allocated an additional $1.2M to 18 EBTJV operational, outreach, and assessment grants. Hundreds of organizations have been involved in these projects, including NGOs, state agencies, federal agencies, watershed groups, indigenous tribes, businesses, educational institutions, and local governments. These projects have removed 120 barriers, reconnected 453 miles of stream, and enhanced or restored 359 acres of riparian habitat. A high priority is placed on projects that utilize proven methods that address the root of the cause of decline in the catchment, rather than just treat the symptom of the impairment.

The FY25 award cycle closed in February, and we anticipate making an announcement on those awards next spring. To apply for a future round of NFHP funding (FY26), visit the Funding page in October this year, or enroll in this newsletter.

About the EBTJV:
The EBTJV is a unique network that connects the leading scientists, fisheries managers, and experts from state, federal, NGO and other on-the-ground practitioners across 17 states. We work collaboratively with partners at multiple geographic and jurisdictional scales to reverse the declining trend for wild Brook Trout, and are one of the twenty members of the National Fish Habitat Partnership.

Read more

Publications

Thermal stressors during embryo incubation have limited ontogenic carryover effects in brook trout. Letchner et al. Published June 2024. Journal of Thermal Biology.

Smaller body size under warming is not due to gill-oxygen limitation in a cold-water salmonid. Lonthair et al. Published February 2024, Journal of Experimental Biology.

Variation in resting respiration rate of Brook Trout among source populations : Implications for bioenergetic models. Hartman and Bauerlien. April 2024. Transactions of the American Fisheries Society.

The lethal and sublethal impacts of two tire rubber-derived chemicals on brook trout (Salvelinus fontinalis) fry and fingerlings. Philibert et al. July 2024. Chemosphere.

Modeling Full Life-Cycle Effects of Copper on Brook Trout (*Salvelinus fontinalis*) Populations. Janssen et al. Published May 2024. Environmental Toxicity and Chemistry.

Taking heat (downstream): Simulating groundwater and thermal equilibrium controls on annual paired air–water temperature signal transport in headwater streams. Johnson et al. Published May 2024. Journal of Hydrology

Strong variation in Brook Trout trends across geology, elevation, and stream size in Shenandoah National Park. Childress et al. Published February 2024. TAFS.

Effects of episodic stream dewatering on brook trout spatial population structure. Hitt et al. Published May 2024. Freshwater Biology.

Genetic predictors of population resilience: A case study of native Brook Trout in headwater streams. Schwinghamer et al. Published May 2024. NAJFM.

Genetic structure of restored Brook Trout populations in the Southern Appalachian Mountains indicates successful reintroductions. Smith et al. Published April 2024. Conservation Genetics.

Thermal transfer rate is slower in bigger fish: How does body size affect response time of small, implantable temperature recording tags? O'Donnell et al. Published May 2024. Ecology of Freshwater Fish.

Below is a series of publications from the Kanno Lab, Colorado State University. *We used existing brook trout count and stream temperature data for spatial and temporal inferences in the southeastern USA (Georgia to Maryland) and we are currently working to expand the analyses to the eastern range-wide scale for spatial assessment and conservation prioritization.*

> Using multi-scale spatial models of dendritic ecosystems to infer abundance of a stream salmonid. Lu et al. Published May 2024, Journal of Applied Ecology.
>
> Landscape influences on thermal sensitivity and predicted spatial variability among brook trout streams in the southeastern USA. Valentine et al. Published May 2024. River Research and Applications.
>
> Spatial asynchrony and cross-scale climate interactions in populations of a coldwater stream fish. Valentine et al. Published November 2023. Global Change Biology.
>
> Regularized Latent Trajectory Models for Spatio-temporal Population Dynamics . Lu et al. Published April 2024. Journal of Agricultural, Biological and Environmental Statistics.

Below are resources highlighting the new in-progress hydrography data model (3DHP), from the USGS National Geospatial Program.

> Call to Action Report - https://doi.org/10.3133/cir1519
> Webinar - Understanding the Transition from NHDPlus HR to 3DHP

Highlighting sea-run Brook Trout

Are you a fan of sea-run Brook Trout? One of EBTJV's Conservation Actions is to " Conserve unique wild Brook Trout life history strategies". We'd like to highlight the salter Brook Trout of Red Brook, on the South Coast of Massachusetts, that spend their winters in saltwater and return to streams in the spring. We've bookmarked this video link to begin at Brook Trout and Steve Hurley of MA DFW. This episode of "Explore New England" also features fishing for striped bass in Buzzards Bay, mountain biking through Minot Forest, kayaking on the Agawam River, hiking in Marks Cove, and sailing on Onset Bay. For more on salters, check out the Sea-Run Brook Trout Coalition, who is an EBTJV MOU signatory.

In the news

Natn'l Assoc. of Conservation Districts: **NACD Awarded $585,824 U.S. Forest Service Landscape Scale Restoration Grant to Advance Regional Conservation Efforts.** June 3, 2024. *This grant will enable the Partnership to continue to advance its mission to create a collaborative network that leverages resources to manage, restore, and conserve forests and protect water resources.*

Bay Journal: **Will a Focus on Stream Health Help Boost the Chesapeake?** June 3, 2024. *For 40 years, the Bay region has struggled to sufficiently reduce nutrient pollution from farms. The reasons are complex. But it's important to explore those challenges as the region holds a tough conversation about the Bay restoration effort beyond 2025.*

NOAA: **Compiling the First -Ever Color Portrait of Narraguagus River Thermal Habitats.** May 24, 2024. *Celebrating World Fish Migration Day, we check in with Valerie Ouellet, intrepid researcher studying this key habitat for endangered Atlantic salmon.*

TRCP: **Conservation Funding Assists Restoration at Pennsylvania Wildlife Refuge.** May 20, 2024. *The Nature Conservancy works with partners to protect a vital mosaic of trout streams and wetlands at Cherry Valley National Wildlife Refuge in*

northeast Pennsylvania.

Manchester Journal: **Doug Lyons Presents "Guide to Fly Fishing the Battenkill"** May 16, 2024. In "Fly Fishing Guide to the Battenkill," local expert Doug Lyons covers the fishing access, hatches, patterns, and strategies for both the Vermont and New York stretches of the river, as well as its major tributaries.

F&S: **Sneak Preview of the Cover to the New Field and Steam Journal.** May 16, 2024. (Hint: it involves vintage art of a beloved char and a new take by artist Ryan Kirby)

Bangor Daily News: **What Scientists Learn Here Could Preserve Maine's Brook Trout Fishery.** May 13, 2024. 3-year study by the Maine Department of Inland Fisheries and Wildlife on Mooselookmeguntic Lake, which has a protected native brook trout fishery.

Yale Climate Connections: **Brook Trout are in Trouble in Adirondack Lakes.** May 13, 2024. There has been a lot of press about a recent study of Adirondack lake temperature-oxygen squeeze. This is one piece.

DRBC: **Contaminants of Emerging Concern: 6-PPDq.** May 16, 2024. This chemical in tires could be a ubiquitous microplastic entering surface water systems in developed areas. Also see Philibert et al. above.

Trout Unlimited: **Tire Wear Particles and Fish Health** (YouTube video with Helen Neville, TU, and John Hansen, USGS). *For more than 25 years, stormwater runoff has been implicated in the deaths of thousands of coho salmon in the Pacific Northwest. In 2021, researchers discovered that a common chemical found in tires - 6PPD was responsible and was toxic to many other species, including Brook Trout and Rainbow Trout. Hear from TU and our partners at the USGS on the latest science behind this problem and what we are doing.*

UMASS Amherst: **Why are Fish Getting Smaller as Waters Warm?** February 21, 2024. Is it gill size limitation - they argue not (and used Brook Trout as the study fish to test an ecological concept). Also see Lonthair et al. above. Also see piece in the Washington Post.

Press-Republican: **FPP Funds New Culvert Crossing in Essex County.** May 7, 2024. A project to replace and existing dual culvert crossing over the North Branch of the Boquet River with a 120-foot bridge will receive $500,000 in federal funding from the National Fish Passage Program.

Allegheny Front: **River Group gets 1.2M to Remove Dams in Ohio and Susquehanna Watersheds, Improve Fish Habiat.** May 3, 2024. The U.S. Fish and Wildlife Service is funding American Rivers to remove 10 dams in Pennsylvania with money from the Bipartisan Infrastructure Law.

NHPR: **Something Wild: Trout are Made of Trees.** Featuring John Magee of New Hampshire F&G. May 31 2024.

Sharon Herald: (Opinion) **The Evening Campfire: Tennessee Brook Trout.** May 17, 2024.

Waterbury Roundabout: (Opinion) **Headwater Streams are Vital Sources of Clean Water.** April 25, 2024. *In an effort to share the importance of these streams and boost conservation around them, in 2010, my research students and I began a long-term study of 12 tributaries of the Piscataquog River in Francestown, New Hampshire.*

University of Arkansas: **Taking a Closer Look at Headwater Streams in Light of Climate Change.** September 2023.

NC Wildlife: **Trout Fishing in North Carolina**. *Motorists can help support the conservation and management of Brook Trout by purchasing a new conservation license plate that depicts North Carolina's only native trout.*

Job postings

West Virginia Rivers Coalition: Senior Scientist Closes 6/14
Canaan Valley Institute: Finance and Grants Manager. Rolling review
South Carolina DNR: Visual/Digital Media Director Closes 6/11
Town of Fairfield, CT: Natural Resources Specialist. Closes 8/31
Massachusetts DFW: Stream and River Biologist Project Leader
Tennessee WRA: Wildlife Manager 2 – Stream/Rivers Fisheries Manager. Click 'external candidates' and Search JobID # 58205. Closes 6/17
ICPRB (Interstate Commission for the Potomac River Basin): Water Resources Planner. Closes 7/5
Trout Unlimited: Fisheries Restoration Biologist, Monongahela National Forest, West Virginia. Focused solely on brook trout restoration actions on public lands in West Virginia. Contact Dustin Wichterman for more information.
USFWS: GS-9 (term) Fish and Wildlife Biologist, Lake Champlain F&W office. Closes 6/10.

Support Brook Trout conservation

Help us keep wild Brook Trout on the map! The Eastern Brook Trout Joint Venture accepts monetary donations through our 501c(3) nonprofit sponsor Beyond the Pond. Donations are tax deductible to the extent allowed by law. When you select EBTJV as the Fish Habitat Partnership to support, all funds go to us and go towards outreach, coordination, and on-the-ground habitat projects that improve cold water habitat so that future generations can enjoy catching this beautiful fish.

Donate Now

The Eastern Brook Trout Joint Venture (EBTJV) is a geographically focused, locally driven and scientifically based effort to protect, restore and enhance aquatic habitat throughout the Brook Trout's Eastern US native range. Learn more
We are a member of the National Fish Habitat Partnership
Our 501c(3) sponsor is the Canaan Valley Institute

Eastern Brook Trout Joint Venture | Website View prior e-news here

Share This Email | Share This Email | Share This Email

EBTJV @Canaan Valley Institute | 10624 Appalachian Hwy | Davis, WV 26260 US