# NLC Native Trout Work Group

2019 Northeast Rendezvous


www.tu.org

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# Why Native Trout?

In many places, habitat no longer exists for native species.

Locate remaining habitat and identify fish and protect the habitat.

Even in heavily urbanized areas, viable populations exist.

What about in your area?

To conserve, protect and restore North America's cold water fisheries and their watersheds.

TU's Conservation Approach

- Protect
- Reconnect
- Restore
- Sustain

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The TU Mission and the Workgroup

# Origins & History of the Work Group

- Work group as originally established to provide focus on Brook Trout in watersheds in PA and other eastern states impacted by coal mining.

- In 2013 work groups were reshaped. The Eastern Brook Trout plus Salmon and Steelhead workgroups merged to form Native Trout workgroup with particular focus on Yellowstone Cutthroat trout.

- Since the change to a broader focus on native trout most work group activity has been on Western Trout issues.

- Western Initiative has made great progress. Aim is to re-establish in the East.

# Goals of the Work Group

- Facilitate grassroots implementation of TU's National Conservation Agenda related to protecting our cold water native salmonid species.

- **Nation wide Scope**.

- Facilitate education, awareness, restoration and science projects related to native salmonid species.

- Provide information related to native species through
    - Web page on TU's website and
    - Serves as advocate for Council & Chapter issues related to native species.

# What has the Work Group Accomplished?

- Early work: to monitor brook trout watersheds in PA & other eastern states impacted by mining; facilitated citizen science to monitor acid mine drainage to brook trout habitat.
- EBT workgroup worked on Brook trout restoration and habitat upgrading in Maine, North Carolina and West Virginia.
- Significant progress controlling invasive lake trout impact on Yellowstone Cutthroats. (Dave Sweet)
- Multiple education/awareness projects related to threatened western native trout.
- Board of Directors Presence, Western Native Trout Initiative (W Colyer).
- Developed 2014 Citizen Science Handbook with WG chairman Paul Holden, Dr. Jack Williams and TU science team.
- Information distribution.

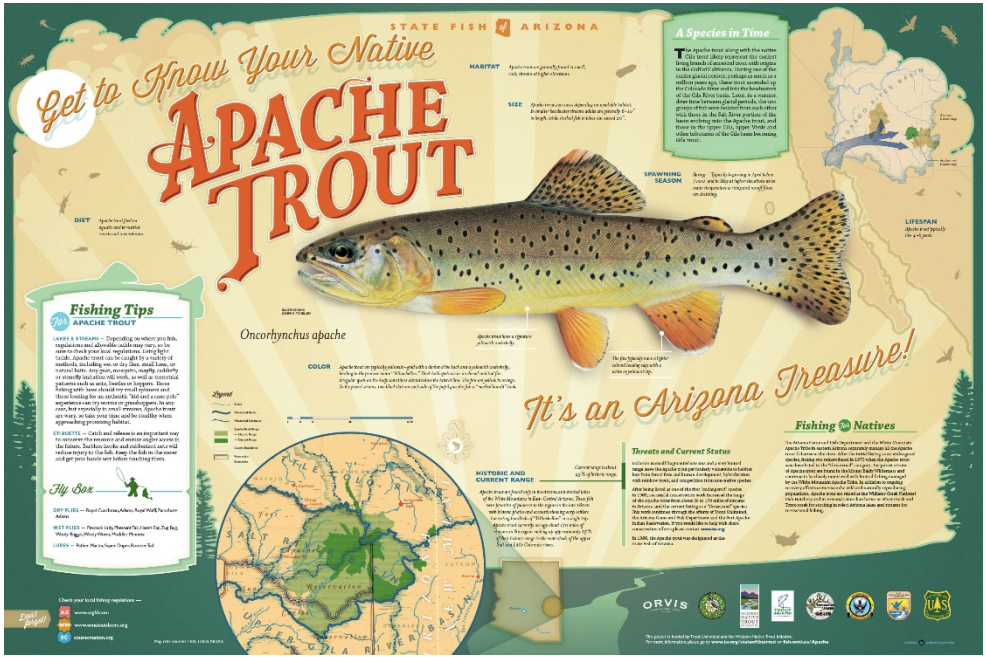
# What has the Work Group Accomplished?

- Listed as Endangered in 1973; down listed to Threatened in 1975

- 28 populations remain in small, fragmented stream segments and contain relatively small numbers of fish

- 170 miles (25%) of 680 miles in historical habitat currently occupied in its historical range in Arizona

- 2,500 posters distributed since June 2017 with a grant match from the Western Native Trout Initiative



# What has the Work Group Accomplished?


- Listed as Endangered in 1973; down listed to Threatened in 1988

- 30 miles (5%) of 600 miles occupied in Arizona of historical habitat

- Currently occupied by 8 recovery units of original 39 populations in Arizona

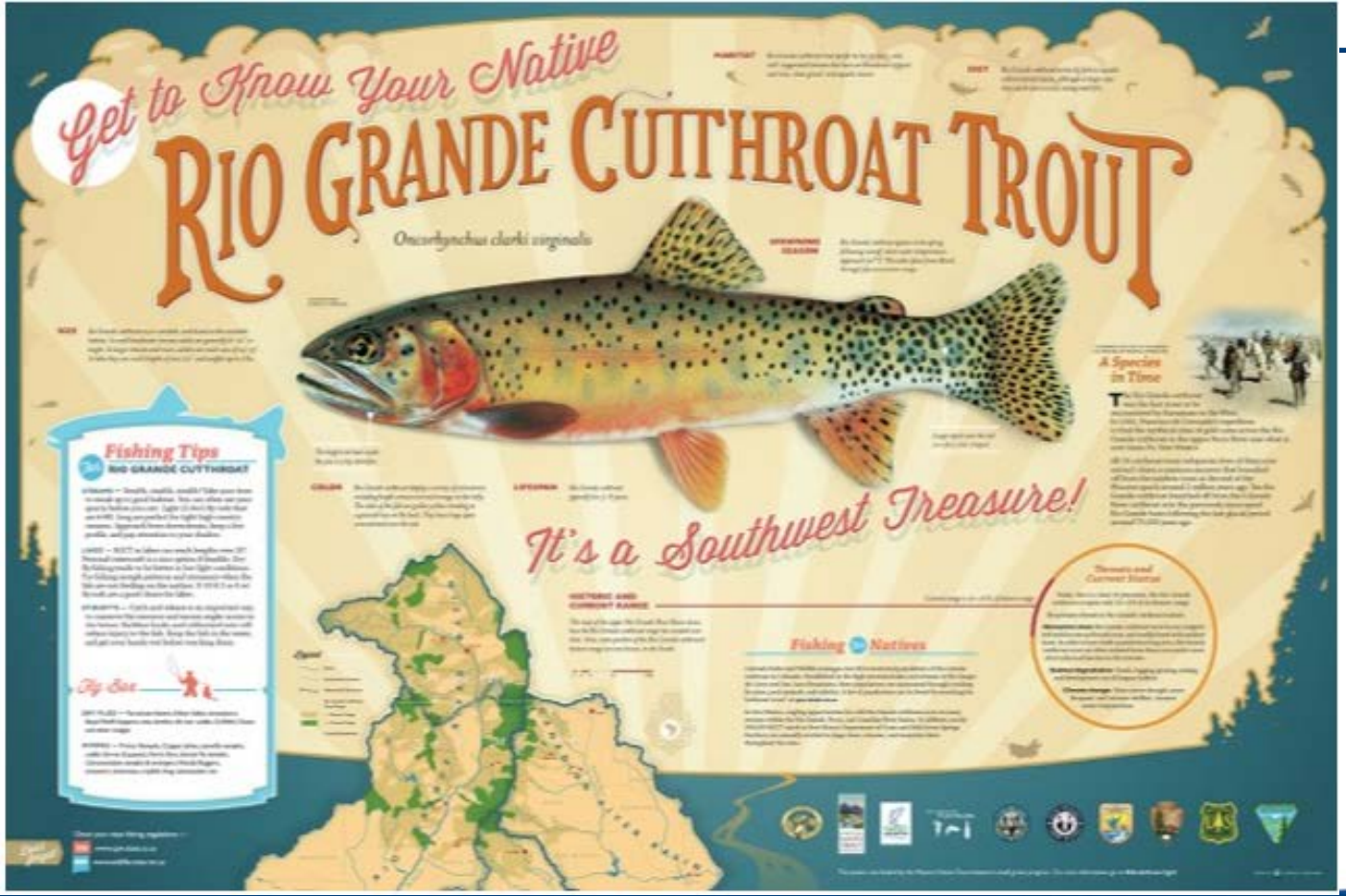
- 2,000 posters distributed since November 2017 with a grant match from the Western Native Trout Initiative

- Populations are continually threatened and reduced by major forest fires

# Redband Trout Poster

1. Over 3,200 posters delivered to six western states, incl councils and agencies.
2. Posters will be used for education, awareness & fundraising.
3. Thanks to Western Native Trout Initiative (WINTI) for providing a significant grant for poster production.

# Rio Grande Trout Poster



# Western Native Trout Challenge

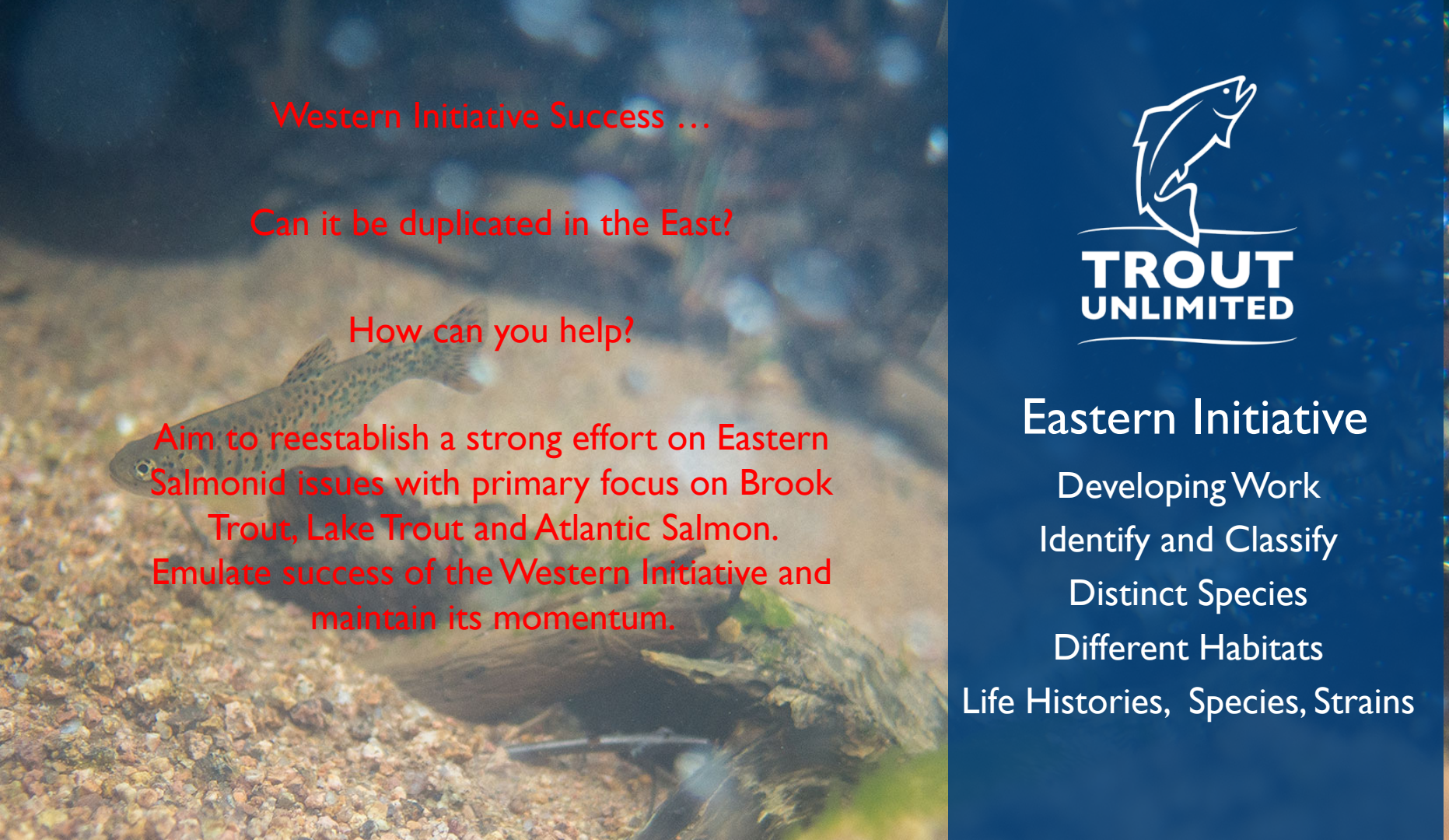

YOUR *adventure* STARTS HERE

https://westernnativetroutchallenge.org/

How Can We Achieve Similar Success in the East…?

# Current Activities

- Support the Western Native Trout Initiative (WNTI) angler education/recognition program that rolled out in May of this year.
- Working with eastern states NLC representatives and state council chairs to reestablish a focus on Eastern States native trout issues.
- Establishing a new TU website work group page that will provide resources and references on native trout issues.
- Angler Education Programs (complied by D. Dalrymple, San Diego Chapter):
    - Western States Educational Angling Programs
    - Categorizing Fish:  programs don't use same (or even consistent) scheme to list program's set of fish.
    - Resources: provide varying amounts of supportive material on where and how to fish in their programs.
- Identifying Species and Life Histories.



Western Initiative Success …

Can it be duplicated in the East?

How can you help?

Aim to reestablish a strong effort on Eastern Salmonid issues with primary focus on Brook Trout, Lake Trout and Atlantic Salmon. Emulate success of the Western Initiative and maintain its momentum.

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## Eastern Initiative

Developing Work

Identify and Classify

Distinct Species

Different Habitats

Life Histories, Species, Strains

# Freshwater and Sea Run Brook Trout in the Boston Area

- Red Brook – Long term Success with Salters
- Angeline Brook – Preserving salter habitat and assisting in land acquisition
- Traphole Brook & Neponset River – Success and Danger
- Pine Brook – Resilience of Brook Trout and Development Threat
- Others

# Success Stories (MA)

- RED BROOK, Wareham MA - Unique combination of The Trustees of Reservations (TTOR), Massachusetts Division of Fisheries and Wildlife joined in to create hundreds of acres of preserved land.
- Trout Unlimited undertook the restoration of the brook's sea-run brook trout fishery. Massachusetts Division of Ecological Restoration participated in the removal of four dams, along with extensive habitat restoration.
- Permanent Maintenance Funding secured.

# Angeline Brook – Land Acquisition & Habitat Preservation

- Located in Westport MA, a coastal and upland community in Southeastern MA.
- Angeline Brook is a small stream that empties into Buzzards Bay.
- In response to imminent development threats directly affecting stream and related lands, MA-RI Council & GBTU raised funds quickly to aid Buzzards Bay Coalition to acquire a key parcel.

# Successful Advocacy In Progress: Pine Brook, Wayland MA

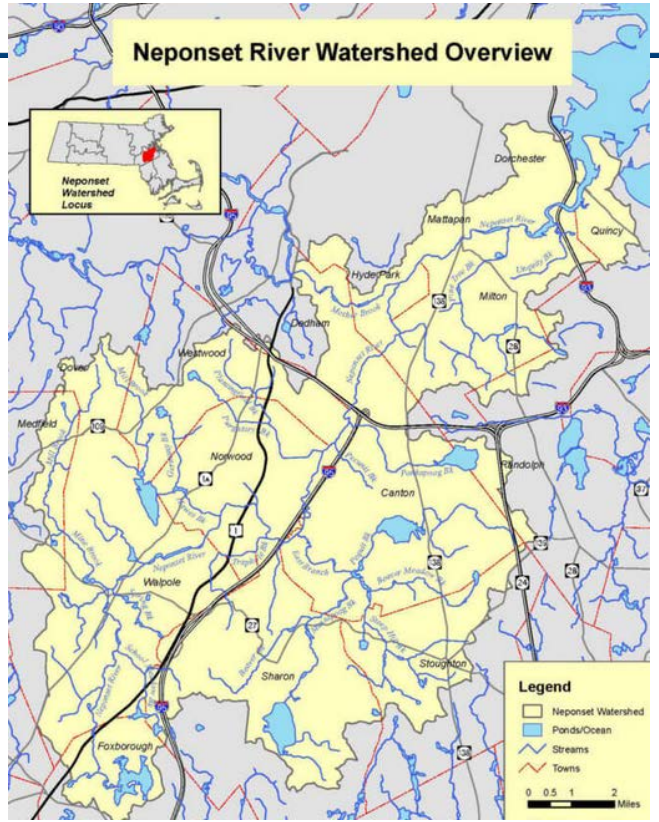
- Brook Trout Population in built up suburban community west of Boston
- Eastern Brook Trout: Wayland MA
- Development threat
- GBTU involvement

# Traphole Brook & Brook Trout – Norwood/Walpole MA

## Small Dam Removal on Brook Trout Tributary of an Urban River
## Forging of an Alliance

# Neponset River

- ✓ The **Neponset River Watershed** includes roughly 130 square miles of land southwest of Boston. All of this land drains into the Neponset River, and ultimately into Boston Harbor.
- ✓ The Neponset, despite its highly urbanized sections, contains several cold water resources that harbor trout.
- ✓ eDNA study to be conducted that will allow better understanding of the trout in the river.



# Brook Trout Portfolio

Shawn Rummel, TU Staff

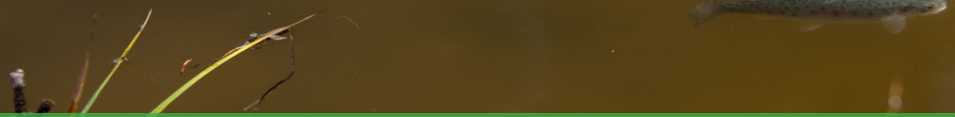
The Brook Trout Portfolio is a powerful mapping tool and concept that helps identify patches of brook trout habitat in any watershed and identify strategies for protecting, reconnecting or restoring them based on the available science.

Great volunteer tool to be able to "take home" a tool they can use to start doing real brook trout work in their own watersheds.

Your questions & input.

How you can help! VOLUNTEER! BECOME INVOLVED!

- Make use of the Brook Trout Portfolio Tool
- Work within your Chapter and Council to promote native trout awareness!
- Become involved with the Work Group!
- Poster Design & Distribution when complete
- Outreach
- Citizen Science



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Bill Pastuszek TUGreaterBoston@gmail.com

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# Thank you

# Additional Materials

Projects

Upper Gunpowder Falls Watershed
Brook Trout Conservation Partnership

Photo by Matt Kline

MDTU Brook Trout Conservation Coordinator:
Scott C. Scarfone, ASLA
sscarfone@oasisdesigngroup.com

# ABOUT THE PARTNERSHIP

**The Mission of the Upper Gunpowder Watershed Brook Trout Partnership:**

A coalition of volunteers, community organizations, and governmental agencies, the Partnership works collaboratively to improve water quality and stream habitat, helping to conserve and restore brook trout populations in the Upper Gunpowder Watershed.

**The purpose of the partnership is to:**

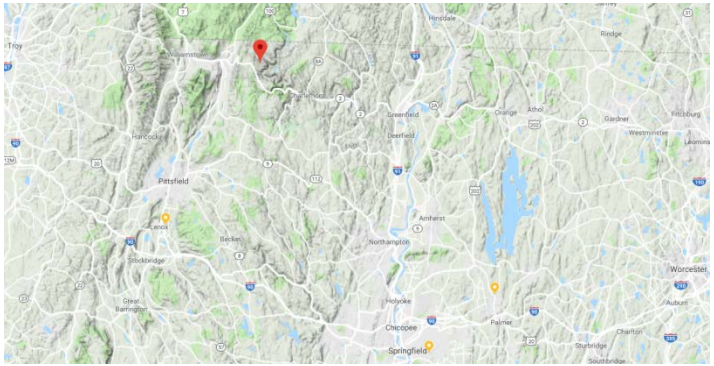
- Ensure the protection and conservation of Maryland's remaining high quality habitat that supports brook trout populations.
- Return marginal stream habitat to a condition which will support the conservation and where feasible restoration of healthy historic brook trout ranges.
- Educate and engage landowners, emphasizing the importance and value of preserving the limited number of habitats in Maryland that support brook trout populations.
- Help land owners realize the full economic benefit of their property through best practices in conservation, forestry, and land management.
- Collaborate with private and public land owners to implement scientifically proven storm water management techniques that improve water quality in the Chesapeake Bay watershed.
- Connect private land owners with grant opportunities to improve land management practices.
- Promote land use and conservation strategies that respect land use rights while ensuring the protection of our water resources, habitat, and native flora and fauna.

# BROOK TROUT IN UPPER GUNPOWDER

**About Brook Trout**

- Brook Trout are Maryland's only native freshwater trout species
- MD DNR has listed Brook Trout as a 'Species of Greatest Need of Conservation' in its Federally mandated Wildlife Diversity Conservation Plan
- Maryland's Gunpowder basin supports the second-highest number of brook trout in the state, holding 25.2% of the total Maryland population
- The vast majority (82%) of the remaining Maryland populations are classified as "greatly reduced", meaning that within the subwatersheds where they occur they occupy only 1% to 10% of the area that was historically inhabited
- Brook trout are an Indicator Species; their presence in an area is directly linked to the overall health of the stream system. Their persistence in local watersheds is indicative of healthy ecological systems whose protection should be prioritized.
- Human impacts such as deforestation, agricultural land use, and urbanization have resulted in the extirpation of brook trout from 62% of their historic habitat in Maryland.
- Of the more immediate threats to brook trout populations in Maryland, urbanization is the most serious. In watersheds where human land use exceeds 18% brook trout populations cannot survive.
- 41% of Brook Trout Waters are on privately owned land. Keep reading to find out how easy it is for you to help.

# Deerfield TU Chapter - Brown Trout Study (not quite native, but reproducing…




2018 DEERFIELD RIVER WATERSHED TROUT SPAWNING SURVEY

Final Report, March 2019

- 75 more redds found last fall, otolith testing of fry to determine hatching time frame to submit to state and federal regulators to see if dam hydro peaking flows can be adjusted to protect fry when they hatch.
- Trout radio telemetry study to analyze effect of hydro-peaking flows on trout movements and habits year-round but especially during spawning.
- Surgically implanting 30 brown trout with radio telemetry tags this summer. Teaming up with the USGS Conte fish lab and MA F&W.
- Telemetry tracking program, tagging 30 wild browns and tracking their movements, with mobile monitoring device, working with USGS Sylvio Conte group and MA F&W.
- As part of the Embrace a Stream Grant, four fixed position monitoring devices will be acquired to effectively cover one of the hot spots to monitor spawning fish movement in and out of redds during hydropeaking events.


The End