Shenandoah National Park - Brook Trout Blitz

WE NEED VOLUNTEERS!

On **Saturday, June 10th**, Shenandoah National Park is collaborating with the Shenandoah National Park Trust, Trout Unlimited, and Friends of the Rappahannock to conduct an environmental DNA survey to determine the status of brook trout populations across the park.

Shenandoah National Park has hundreds of miles of brook trout streams and is home to some of the best brook trout fishing in the region. With the park's robust monitoring program that uses electrofishing to monitor brook trout 96 streams and tributaries, the goal is to understand trends in fish populations. This program is based on fixed sites that are revisited at intervals to best detect trends. However due to the combination of fixed sites and numerous streams, many locations are rarely visited as part of the monitoring program making the park's understanding of variation across Shenandoah less complete.

Brook trout face several significant threats that have resulted in substantial habitat loss. Although the park protects streams and fish from the detrimental effects of land use change, the effects of other stressors such as climate change, acid deposition, and stream barriers affect fish across park boundaries. Recent analysis of our fish monitoring data has yielded some interesting and surprising results; some populations are declining rapidly while others have remained stable or increased.

Brook trout and other organisms shed DNA as they lose bits of skin, scales, and slime or as they die and decompose. This is called environmental DNA (eDNA) because it is found in the environment rather than within an organism. Stream water can be collected, filtered, and analyzed to detect these pieces of DNA and match them to particular species. This method is excellent for determining presence/absence of species and can often be used to get a general understanding of abundance.

With the help of interested citizen scientists, we are hoping to obtain eDNA samples from 146 sites across the park, including many streams that have never been sampled by park staff. The samples are easy to collect; it is simply the careful collection of bottles of water. These samples will help us (and you!) understand how brook trout are distributed across the park and where they are doing well.

We will host a one-day event on Saturday June 10, 2023 where citizen scientists will collect bottles of water and bring them to two centralized locations where park staff will filter them.

SIGN UP HERE!

https://riverfriends.org/event/shenandoah-national-park-brook-trout-blitz/