

Summary of Environmental DNA Sampling in Virginia Trout Streams



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November 2020

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Project Type

Environmental DNA (eDNA) sampling in Virginia trout streams.

Goal

Collect eDNA samples to fill gaps in trout distributions in Virginia streams.

Objective

In July-September 2020 collect eDNA samples from historically cold-water streams capable of supporting Brook Trout populations.

Approach

The Rocky Mountain Research Station National Genomics Center for Wildlife and Fish Conservation identifies sample sites on cold water streams in Virginia. The CATT trains and deploys field teams to complete eDNA sample collection. The CATT provides eDNA samples and meta-data to the National Genomics Center for analysis. National Genomics Center posts results in webmap.

Accomplishments

The CATT collected samples at 210 sites from 67 streams on public and private lands in Virginia and submitted samples to the National Genomics Center staff for analysis.

Partners and Contacts

Forest Contacts: Ashley Walters, Wildlife Biologist; Thomas Franklin, eDNA Program Leader; Jennifer Hernandez, eDNA Program Coordinator; Steve Reeser, VA DWR, Dawn Kirk, GWJNF Forest Fisheries Biologist



eDNA sample collection in the Pigg River



Connecting the filter pump battery at Big Branch

Project Summary

We used established water filtering protocols to collect eDNA (DNA that is released naturally by an organism into its environment) from stream water. The National Genomics Center, Virginia Department of Wildlife Resources, and the George Washington and Jefferson National Forest (GWJNF) seek to use eDNA detections on national forest, state, and private lands to better understand the current distribution of Brook Trout populations in Virginia. Brook Trout presence is generally correlated with clean, cold-water streams. Our results can be compared with both past and future Brook Trout distributions to document changes in habitat quality and to guide restoration efforts. Our results will be posted in the online eDNA atlas at: <https://www.fs.usda.gov/rmrs/ngc/edna>.