

Application Note 16

USDA Forest Service Three Pass Depletion/ Water Quality:

Using In-Situ Inc. MP Troll 9000 to Monitor Water Quality on Cherokee National Forest Streams
Robert Sain - Tennessee Izaak Walton League, Fisheries Biologist/ Research Director



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This application does not constitute product endorsement by the Tennessee Izaak Walton League or its affiliates, rather a graphic description of product use for informational purposes only.

Project Overview

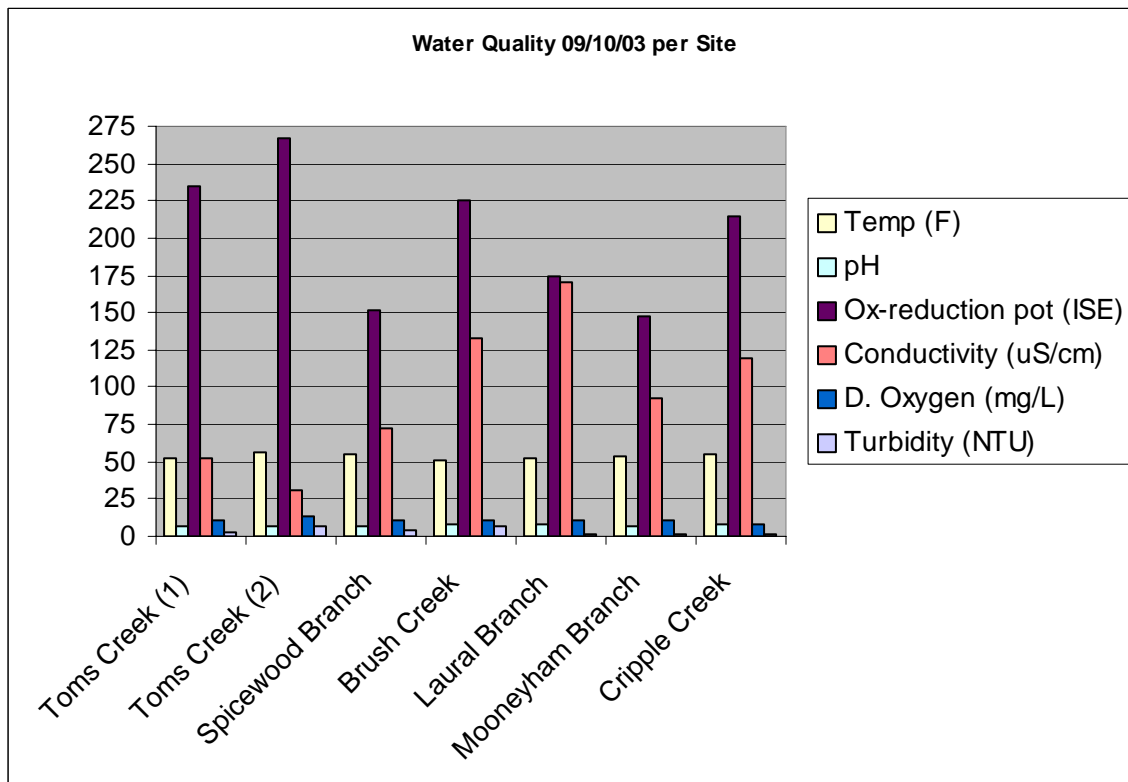
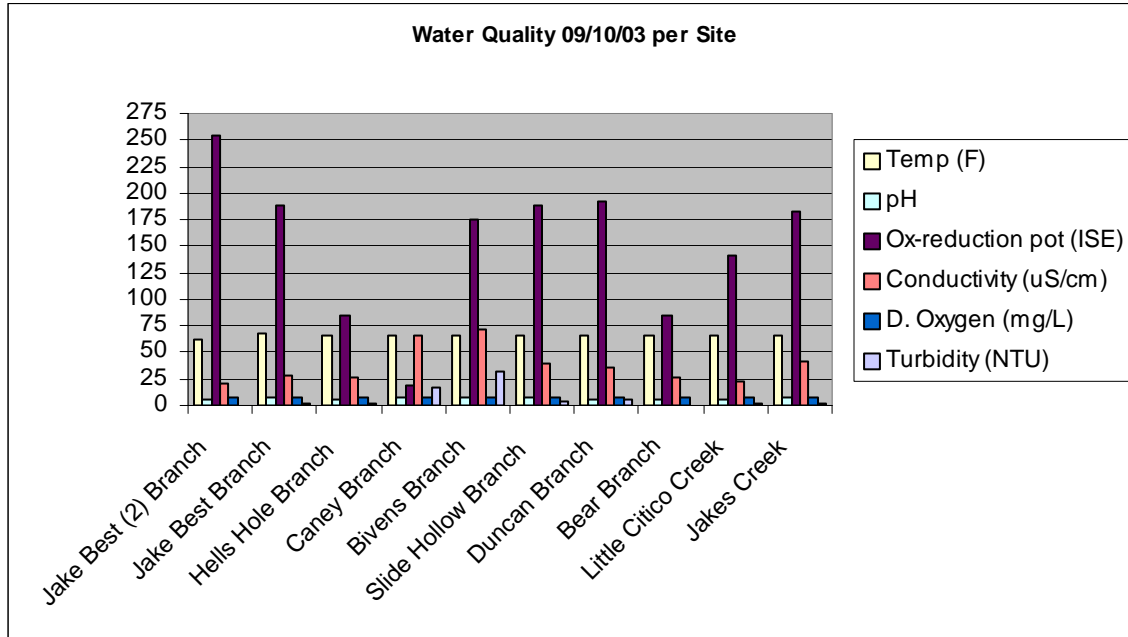
The purpose of this project was to compare water quality found with fish abundance and diversity in tributary streams of the Cherokee National Forest. The Tennessee Izaak Walton League's fisheries program works with the USDA forest service via cost-share contract agreements to do needed inventory of tributary streams in Tennessee. This first year of our contract we provided an added attribute to the required data taken for each stream—water quality measurements. Dissolved Oxygen, pH, Temperature, Oxidation Reduction Potential, Turbidity and Conductivity were assessed as time allowed. Results from this project will help the USDA Forest Service compare various data to prioritize fish re-introduction programs, for example.

Equipment / Procedure Overview

Equipment: The MP Troll 9000, 25 ft of quick connect cable, and the Pocket-Situ software, running on an iPAQ color Pocket PC, was used to take snapshot readings. Data was recorded by hand and added to field notes that were later prioritized and put into various spreadsheets.

Procedure: The MP Troll 9000 was calibrated before leaving the office. At each site the Troll 9000 was deployed to sample physical and chemical parameters.

Test results:



How In-Situ Equipment Helped

The Troll 9000 was easily deployed from our work truck. The pelican case used to store the Troll 9000 allows rugged durability while safely securing the device. Because of its quick deployment, field time was minimized. The Cherokee National Forest Wildlife Biologist, Jim Herring was pleased to learn about the In-Situ, and to see how easy it was for us to use it in the field.

