

Client  
National Park Service

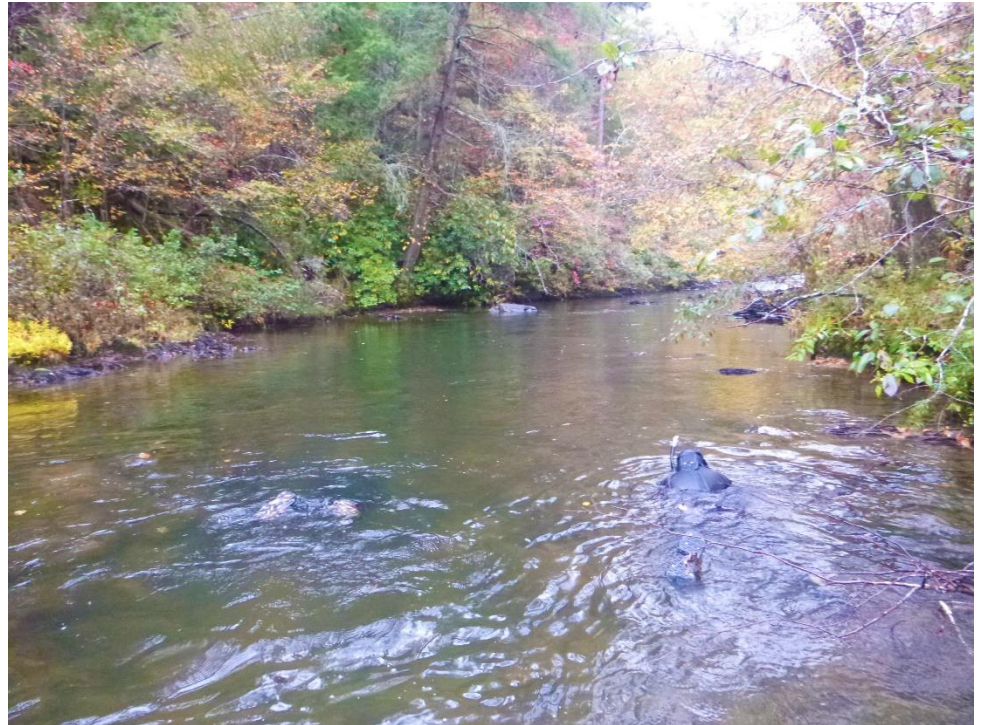
Key Services Provided  
Freshwater Mussel Survey

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2015 - 2016

ES Key Staff  
Matthew Johnson  
Andrew Zimmerman  
Nicklaus Shoots

## FRESHWATER MUSSEL SURVEY IN THE GREAT SMOKY MOUNTAIN NATIONAL PARK

Blount County, TN



EnviroScience, Inc. conducted a presence/absence survey for freshwater mussels in Abrams Creek in the Great Smoky Mountain National Park. Data from this survey will be used as baseline data by the National Park Service for understanding the current status of the resident mussel fauna and to aid in developing long-term resource management strategies.

The survey utilized a combination of snorkeling, SCUBA, and un-aided visual inspection techniques to search for the presence of freshwater mussels at 23 sites throughout the lower reach of Abrams Creek. We selected sites using a combination of GIS desktop delineation and rapid, field-based habitat assessments to determine suitable mussel habitat. Semi-qualitative sampling techniques were used at each site to populate a species table, determine observed overall abundance, and calculate catch-per-unit-effort.

Data collected were compiled in a comprehensive report for National Park Service headquarters staff. The report included site mapping, digital field photos, observational and calculated mussel data, and habitat data collected using rapid, field-based habitat assessments.