Permit 2018-020:

Name:
David Anand

Department or Organization:
Homeschool

Email Address:
david@anandfamily.org

Are you requesting renewal of a previously approved permit applicaton?
No

Type of activities at The University of Akron Field Station and Bath Nature Preserve
Research

Title of project or class name and course number:
Water quality of North Fork of Yellow Creek and Bath Creek streams in the Fall of 2018

Date/Dates requested:
September 10, 2018 - May 15, 2019

Number of people in group:
5

I am requesting permission to use a Research Area.
No

I am requesting permission to use a Sensitive Area.
Yes

I am requesting permission to use areas outside of the designated Research or Sensitive Areas.
No

I would like to use the Martin Center for Field Studies and Environmental Education for this prop...
No

Will the activity involve destructive sampling/collecting?
Yes

Which Sensitive Areas?
North Fork

Please explain how the material will be collected (including equipment), and an estimate of how m...
macroinvertebrate sampling with d-nets. Macros will be returned to stream after identification and entry into data sheets

Provide a brief description of (1) your proposed activities, (2) goals, and (3) impacts of your u...

What I want to do is measure the water Quality in the two streams in Bath Nature preserve area, using biological, physical and chemical measurements and tests.

Experimental steps

1. I am researching ways to measure the Water quality from "Save our Streams" website, and learning various ways of doing this.
2. For biological measurements, I would like to take samples of water on a weekly or bi-weekly basis and measure which and how many Macroinvertebrates are present in each stream.
3. I would also like to take physical measurements and chemical measurements, based upon commonly measured values like water temperature, turbidity, Phosphate and Nitrate content etc.
4. I am going to research some automated Arduino micro controller based sensor systems for measuring these values remotely or continuously.
5. I hope to build a prototype system using the Arduino to do the same.
6. I hope to compare and analyze the data at the end, for both the streams and see what is probably the cause of similarities and differences.
7. Working with Dr. Lara, I would like to draw some conclusions based upon this study, to present at the Science fair.

David Anand, 8th grade, Anands Homeschool Academy

By checking this box, I agree to the above terms and state that all of the above information is c...

I agree