

Application for a Research Permit for The BNP

Name (Last, First, MI): Nieset, Julie E.

Date: 5/27/04

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Title of Research: Characterization of *E. coli* survival rates and fitness responses from protistan digestion.

Briefly describe the research to be conducted at the BNP in non-technical language (this paragraph will be used in describing your research to the public).

I will be collecting water samples to determine the protist species and *E. coli* concentrations in the stream during storm events and during non-storm events.

Laboratory experiments will be performed to determine *E. coli* survival rates from protistan digestion as well as the effects that survival from protist digestion has on *E. coli* fitness.

Briefly describe the goals of the proposed research.

-M.S. thesis research

-Develop lessons for K-12 science classes (GK-12 program)

-Determine *E. coli* concentrations and protist species after storm events and during non-storm events

-Determine *E. coli* survival rates from protistan digestion and effects of predation survival on *E. coli* fitness

What are the GPS coordinates or locations of your proposed research? North Fork stream or Yellow Creek.

What is the expected duration of your proposed research? Two years

What is the Web address of your research outline? Non-applicable

Briefly outline of methods to be used. Be sure to include outlines of the equipment to be used (if any) in the research.

Water samples (approximately 200 ml each time) will be collected three times after storm events and three times during non-storm events. To collect samples, a clean container will be used to draw water from the stream and the water will be placed in plastic bottles. The samples will be analyzed in the laboratory.

Outline the use of markers/cages/fences/etc. for your research. Note: in receiving a research permit, you must agree to remove all such research tools at the completion of your study.

Not applicable

What is the potential impact of your research on nature preserve?

Possible off trail access, but impact will be minimal.

Have you looked at the listings and web sites of the research being conducted at

BNP? <http://www3.uakron.edu/biology/bath/active.html> Yes No

Are there any potential conflicts of your research with others at BNP? Yes _____

No X_____

Explain:

To be granted a research permit for work at the BNP, you must agree to the following terms:

- Researchers are responsible for obtaining the appropriate state or federal permits for the conduct of their research on the BNP (e.g., when working with regulated species).
- Researchers are responsible for removing all markers, etc. from their research plots when the research is completed.
- Researchers must build a web site (immediately after being granted a permit) outlining their research at the BNP so that other researchers can avoid the proposed research site(s). Therefore, the web site must clearly outline, using one or more maps, the exact location(s) of the proposed research.
- Researchers will file an annual (due in yearly increments based on the date of the permit) and final report. Such reports will include: user days on the BNP, a summary of results of the project(s), a list of data generated and contact information for those interested in the data, and a list of publications resulting from the project(s).
- Any publications resulting from research conducted at the BNP must acknowledge the use of the preserve by referencing the BNP permit number. A copy of any such publication should be filed with the BNP committee.
- To abide by the rules and regulations of the BNP in any and all conduct of research at the BNP.

By signing the request for a BNP research permit below, I agree to the above terms and state that all of the above information is correct to the best of my knowledge. I also agree to amend my above permit request if my research plans change such that they are no longer well represented in the information supplied in this permit request. If I fail to notify the BNP oversight committee of significant changes in my research, or if I do not follow the rules of the BNP, I realize that the BNP oversight committee can revoke my research permit, and disallow any further work by me, research or otherwise, at the BNP.

Signature: _____ Date: May 27,
2004

Print Name: Julie E. Nieset

Approval:

Bath Township: _____

Date: _____

University of Akron: _____

Date: _____