

PERMIT FORM FOR RESEARCH AT THE BATH NATURE PRESERVE

Last Name: Madson

First Name: Erin

MI: B

Affiliation: University of Akron

Title of Research: Effects of Herbivory and Granivory on the Seed Pool in a Wet Meadow

Briefly describe the research to be conducted at the BNP.

This research will use three treatments to test what effects granivory may have had on the overall results of the project. This will test for the effects of granivory by voles and possible avian influences on the results.

Briefly describe the goals of the proposed research.

This research is merely a component of my larger research project, and looks at the influence granivory may have on the seed bank. The end result will help describe how mammalian herbivory and granivory affects plant community composition in Garden Bowl.

What are the GPS coordinates of your proposed research?

What is the expected duration of your proposed research? 1 night, June, 2004

What is the Web address of your research outline? NA

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

The research will include 3 treatments with six replicates of each treatment. One treatment will exclude voles, one will exclude birds,

and one will be open to both birds and voles. Fifteen seed species will be placed in Petri dishes and transported to the preserve. All seeds are native to the area; *Elymus virginicus*, *Sparganium americanum*, *Rumex orbiculatus*, *Eleocharis palustris*, *Allium cernuum*, *Scirpus expansus*, *Echinacea purpurea*, *Bromus altissimus*, *Glyceria canadensis*, *Glyceria occidentalis*, *Desmanthus illinoiensis*, *Anndropogon gerardii*, *Carex vulpinoidea*, *Rudbeckia hirta*, and *Liatris spicata*. Treatments excluding voles will be mounted above the ground on flagpoles and secured with duct tape. Treatments excluding birds will be placed in sections of drainpipe, and treatments including both voles and birds will be placed on the ground. All trials will be run simultaneously, making the duration of the project one night.

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 paraphernalia at the completion of your study.

Each treatment will be marked by a flag.

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

The research will not adversely impact the preserve.

Have you looked over the web sites of the other research being conducted at BNP? Yes x 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 11, 2004

Print Name: Erin Madson