

## Calvin Ecosystem Preserve & Native Gardens and Flat Iron Lake Preserve

### Research Protocols

In addition to filing a research application, researchers are responsible for obtaining any and all appropriate university, state or federal permits required for their research.

Researchers should use proper personal safety equipment when handling dangerous tools or chemicals. Research equipment (i.e. boots, waders, watercraft, water sampling equipment, etc.) that has been used outside of the ecosystem preserve must be properly cleaned before being introduced into the preserve.

- Ideally, all research equipment should be cleaned at the location of last use before being moved to a new location. If this is not possible, equipment should be cleaned in the Field Closet on the south side of the Bunker Interpretive Center BEFORE being introduced to the preserve's natural areas.
- To properly clean equipment, remove all debris (soil, mud, plant particles, etc.) and disinfect equipment with a 10% bleach solution and allow to completely dry before using in the preserve.
- Research equipment borrowed from the preserve must not leave the preserve without written consent from the Preserve Director.

Before conducting research, researchers are expected to know which taxa are locally rare and protected and avoid collection of species that are endangered (E), threatened (T) or probably extirpated (X) in the state of Michigan.

(see: <http://mnfi.anr.msu.edu/data/specialanimals.cfm>)

- Researchers are asked to take proper precautions to minimize damage to rare species, the associated soil and vegetation during field work.
- Researchers should use catch and release sampling as much as possible and must be mindful of suitable weather conditions and time of confinement to minimize animal discomfort/fatality when trapping.
- Whenever feasible, photography (instead of collection) should be used to document vertebrate and invertebrate characteristics.
- Researchers are asked to collect only a single sample when obtaining scientific voucher specimens.
- Researchers may not collect from plant populations with fewer than 10 plants at the site (within a 30 meter radius) and should avoid collecting entire plants (including root systems) when plant leaves or shoots are sufficient for identification.

Researchers are expected to remove all flags, marking tape, and research equipment at the end of their data collection period.