



Agency of Natural Resources

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Guidelines for Scientific Research on Rare, Threatened or Endangered Plants in Vermont

Prepared by The Scientific Advisory Group on Flora
Vermont Endangered Species Committee
Adopted July 6th, 2005

The Scientific Advisory Group on Flora that advises the Vermont Endangered Species Committee supports research on rare, threatened and endangered plant species in Vermont. Our interest in the long-term viability of these species leads us to recommend that any adverse impacts be avoided or minimized and that special conditions be met prior to issuance of any permit for collection of plant materials or manipulation of habitat. The permit review will consider the impact on the plants and their habitat as well as the likelihood that the proposed research is feasible and provides results of conservation value. In general, the Advisory Group discourages any impact to more than 10% of the plants in a population, and may in some circumstances require that a threshold number of individuals be present in a population before any impact is sanctioned.

Please be aware that any taking of an endangered or threatened plant in Vermont requires an Endangered Species Permit signed by the Secretary of the Agency of Natural Resources. This requires submission of an Endangered Species Takings Permit Application. The Agency also requests a copy of a research proposal that addresses each of the questions below for research on any endangered, threatened, or rare species. If a question is not specifically addressed in the proposal, please attach a concise response as an appendix. In reviewing the application, the Agency may contact an advisor or associate for a reference. Please provide the appropriate contact information.

Any approved permit will require the researcher to complete a rare plant form for each population visited and provide an annual report that includes a summary of research activities. The researcher is also required to contact landowners for permission and in some cases may need to first determine ownership. The taking of voucher specimens from known, already vouchered populations, will not be permitted.

Please submit all application information a minimum of 60 days prior to the desired issuance of any permit to allow appropriate review and revision, if necessary. Applicants are encouraged to contact the [Wildlife Diversity Program](#) of the Fish & Wildlife Department prior to completing an application and proposal.

Questions to be Addressed in the Research Proposal

1. **Feasibility and Justification of the Research:** Demonstrate that your proposed research answers your research question and is likely to be accomplished.
 - Are there sufficient numbers of populations and/or individuals to meet your research needs?
 - Does the species meet your research needs in terms of size, timing, duration of flowers, fruits, plants, etc.? Consider in advance if the flowers are too small for pollination experiments or if the flowers or plants are ephemeral and do not last long enough to gather sufficient information.
 - Are the plants easily accessible and is landowner permission readily obtained?
 - Is the research able to be successfully completed in the time allotted?

2. **Impact on Rare Species:** Demonstrate that the proposed research will not cause undue harm to the species.
 - Demonstrate the need for any taking of fruits, leaves, spores, seeds, flowers or portions of any of these.
 - Is there another related, more common species that may be substituted to answer the question, or may the research be conducted elsewhere in the species' range where it is more common?
 - Demonstrate that the research is designed to impart the least amount of harm to the plants while answering the research question.
 - Discuss the potential impact of pollinator manipulation, if any is proposed. In most cases inter-population pollen transfer would not be allowed.

3. **Impact on the Habitat:** Demonstrate that the proposed research will not alter the habitat so that it is less suitable to the species.
 - Justify any proposed environmental manipulation such as application of fertilizer, opening the canopy, artificial shading, watering, removing litter, etc. Generally, this will not be allowed unless it can be shown to benefit or be neutral to the plants.
 - Demonstrate how incidental impacts such as the potential for trampling or creating an attraction by flagging will be avoided.

4. **Conservation Benefits:** Discuss any useful information about the species to be gained from the research.
 - Does the research lead to prioritization of populations as to which ones are most important for conservation or survival of the species?
 - Does the research provide any management guidelines that might enhance the long- term survival of the species?
 - Does the research add to the knowledge base about propagation of the species?

Drafted by Dorothy Allard, Dave Barrington, Michael Lew-Smith, Cathy Paris, and Bob Popp November 23, 2004

Revised by R. Popp February 1, 2005

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