

Surroundings



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Rare, Threatened & Endangered Plant Species: An Approach to Corridor Studies



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Ms. Witman is an environmental scientist experienced in conducting natural resource studies and environmental assessment documents, as well as wetland assessments. She has worked on numerous wetlands related projects throughout the Mid-Atlantic region. An experienced botanist, she is qualified by the Pennsylvania Natural Diversity Inventory Department of Conservation and Natural Resources, to conduct threatened and endangered plant species surveys.

As spring is just around the bend, it's time to start thinking Plants! Not just any plants but those that are rare, threatened, and endangered (RTE). Hopefully you sent in your inquiry letters to your state and/or federal agencies for information regarding your projects, and the responses have already reached your desk.

If you receive a letter from an agency identifying a known or potential occurrence for an RTE plant species, a qualified botanist (qualifications depend on the state), should be contacted in order to conduct the necessary studies. Although most DOT projects that involve RTE plant species can be completed in a relatively short period of time, there are projects such as corridor studies, which may require a more intensive effort. The following is an approach to conducting RTE surveys for corridor projects which may take more than one field season to complete based on a number of factors. These factors could include changes in the study area, weather patterns, blooming periods of plants, etc.



Several species require multiple survey years for potential habitat, such as the small-whorled pogonia (*Istria medeoloides*).

Photograph courtesy of the Endangered Plants of Ontario World Wide Website.

The first step, is to contact the resource agency to verify the information contained in the correspondence received. Did the RTE status of the plant change since the letter was sent? What is the age of the recorded plant species? Who found the plant? All this information is useful. After it has been determined that a survey is necessary, background information can be collected from botanical text references, herbarium specimens, and local botanists

The next step is to create a user-friendly field map with base mapping - land cover mapping or USDA aeriols. Some projects involve mapping land cover types, or Anderson Land Use. If this mapping is available for the corridor, it should prove extremely helpful. However, if land cover mapping is unavailable, digital aeriols from the USDA can also be very helpful, although not always the most current. A grid containing a horizontal and vertical axis is overlain on the base mapping and land

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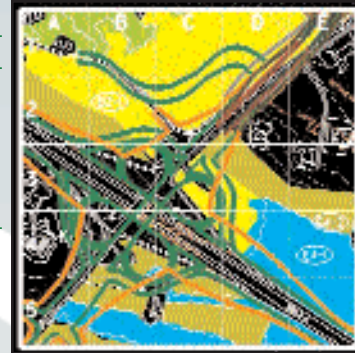
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cover, or USDA aeriels with the study area boundaries. Often times, the base mapping will contain coordinate systems, such as State Plane, or longitude and latitude, which can be slightly modified to accommodate type and size of the study. Each cell of the grid is designated with alphabetical and numeric labels.

Once the grid is set up, the field survey map should be used on a preliminary field scoping to eliminate areas that do not qualify as potential habitat for the targeted species and highlight areas of particular interest, which may require intensive survey. Note taking and documentation should begin from the moment a study is undertaken.

I have found this approach very useful on several multi-year corridor surveys. The approach involves very little set-up time and can be a great time saver when it comes time to survey and later to write the necessary reports



When the field surveys begin, the grid becomes especially important for maintaining specific and detailed records over the course of multi-month or multi-year surveys. Several species require multiple survey years for potential habitat (e.x., small-whorled pogonia [*Isotria medeoloides*]). Notes should include details of what was surveyed, what was discounted and why, what was observed, date, time, name(s) of surveyors, etc. As the various areas are surveyed, a label can be attached to the field map for easy reference. The grid system also allows for easy coordination with engineers and resource agencies when and if the need for discussing a found RTE plant arises.

If an RTE plant is found, coordination with your client and the appropriate agency should begin immediately. A Threatened or Endangered plant should never be removed, transplanted, or harmed in any way, as they are all protected by law.

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