

## **Special Plant Survey Form Instructions**

Areas shaded gray are to be filled in by Maine Natural Areas Program (Sourcecode and MNAP reviewed/verified rank).

**At a minimum, we need the following:** A map showing where you were/where the plant was observed, your name, the date of the survey, the plant name, and the number of plants/relative size of the population. However, additional data fields on the form are extremely helpful, so please try to fill them in.

Site and Survey site: Some areas within the state have been visited repeatedly, and these typically have a site name. Some larger areas also have smaller survey site names. For instance, 'Mt. Katahdin' is a site name, but 'Chimney Pond' is a survey site name. If you don't know the name of the site, leave it blank. You can assign a survey site name, but do this based on some feature/place name, preferably one visible on a USGS topographical map.

Quad name and Quad code: The name of the USGS quad (1:24,000 scale) where the plant is located. If you don't know the quad code, leave it blank.

County and Town: The name of the county and town where the plant is located.

Date: Date of survey/observation.

Surveyor(s): Please list principal surveyor first.

Sourcecode: Please leave this section blank.

Plant name: Scientific name is preferred.

GPS Coordinates: If you have a GPS unit, please use it! Record the location of the plant. Remember, NAD 83 is most helpful, and we are in UTM Zone 19N. If you use another datum, please indicate what it is (e.g., NAD 27). Also, please record the accuracy of your unit.

Directions to Occurrence: Directions to the site can be in general terms, but please be specific about directions to the plant location. We would like enough detail that a person could use these directions to relocate the plant.

**Feature Map:** A 1:24,000 scale USGS map is most helpful, though you can zoom in to the area to show the location of the plant. However, if you do zoom in, be sure that enough locational information is on the map that a person can relate your map to the larger quad. Indicate on the map the exact location of the observation(s).

- If your observation is a small patch or a small number of individuals, place a SMALL DOT on the map, with an arrow pointing to it or a large circle around it so it can be easily seen.
- If you are mapping a larger plant population,
  - a) Draw a thin solid boundary line showing the extent of the observed area occupied by the population.
  - b) Indicate disjunct patches (polygons) by drawing the boundary for each patch separately.
  - c) If the boundary follows the edge of a lake, stream, road, marsh, or other feature, draw the boundary precisely on the edge of the feature.
  - d) Where needed, add notes to the map with instructions on where the boundary line is located or if the boundary is shared with other observations.

**Locational Uncertainty:** This refers to any uncertainty you may have as to where the actual observation occurred. Are you certain that you are within 12.5 meters (~40 feet) of where the plant actually grows? If not, please estimate your uncertainty distance based on landmarks, elevation, etc. If you mapped a population based on air photos, you may choose areal delimited.

**Confidence Extent:** Are you confident that the full extent of occupied habitat or area of the plant is known or has been surveyed?

- Yes = you know that the full extent of the population IS known.
- N = you know that the full extent is NOT known. This would be for instances where you know that there is more of the plant population out there, but you didn't get to see it all.
- ? = you are uncertain if the full extent is known. This would be for instances where you did a cursory look around the population for more, but you aren't certain you examined all of the available or suitable habitat.

**EO Data:** Most important is the number of plants and any other comments. Note if the population size is a precise count or an estimate. Please fill out other fields if you can. Comments can include things such as how much area was searched for the plants; how much of the searched area the plants covered; are stems scattered or clumped, or do they have some other distribution pattern; a brief word picture of the population; and any variations in size, health, or distribution of the population not well covered by checkoff items.

General Description: This is for the plant habitat. Name the associated natural community if you can. List some of the associated plants and the substrate type. Note elevation, aspect, PERCENT slope, light, topographic position, and moisture if you can.

Threats to Population: Indicate these if you can, note if there are none.

Conservation/Management/Research Needs: Do you see any needs for this plant population?

Did you take a photograph? For difficult species, please attach a copy. Did you collect a specimen? If yes, please give collection number (if there is one) and repository (even if it is your personal collection). Note if other members of the genus occur at this site, if there are hybridization issues, if there are identification issues.

Landowner information: Please include this if you can. If there are multiple landowners, list them all if you can. If you know tax map and lot numbers, please provide these. Do you know if the landowner is aware of the plant? Is the landowner protecting the plant?

## **EO RANKING**

Current Condition: This section refers to the condition of the area within the plant habitat. We are looking for a “plant’s eye view”. Check off any disturbances observed, and describe how these may influence the success of the plant at the site (i.e., does the disturbance have a positive or negative effect?).

Condition is an integrated measure of the quality of biotic and abiotic factors, structures, and processes within the observed area, and the degree to which they may affect the continued existence of the plant at this location.

Components of condition for species are:

- 1) reproduction and health,
- 2) species composition and biological structure,
- 3) ecological processes, and
- 4) abiotic physical/chemical factors.

Factors to consider include evidence of regular successful reproduction, richness/distribution of species, presence of exotic/invasive species, degree of disturbance, changes to ecological processes, stability of substrate, and water quality.

Size/Quality: This is a quantitative measure of the area and/or abundance of the plant at this location.

Components of size are:

- 1) area of occupancy,
- 2) population abundance,
- 3) population density, and

4) population fluctuation.

Landscape Context: This section refers to the condition of the area surrounding the plant habitat. Is the area an undisturbed, functioning natural ecosystem? What are the current and past land uses? Is the habitat fragmented?

Landscape context is an integrated measure of the quality of biotic and abiotic factors, structures, and processes surrounding the observed area, and the degree to which they may affect the continued existence of the plant at that location.

Components of landscape context for species are:

- 1) landscape structure and extent,
- 2) condition of the surrounding landscape (i.e., community development/maturity, species composition and biological structure, ecological processes, and abiotic physical/chemical factors).

Factors to consider include connectivity, fragmentation/patchiness, stability/old growth of communities, richness/distribution of species, presence of exotic/invasive species, degree of disturbance, changes to ecological processes, stability of substrate, and water quality.

Overall Rank: This is the “score card” for the population relative to other populations in Maine of the same species. A=highest quality, D=probably not viable. Note that E is not worse than D, it denotes that the species is Extant.

Comments could include why you assigned a particular rank (e.g., largest population in the state; small population, excellent habitat; large population, fragmented habitat under development pressures), and also your experience with this species (how many populations have you seen? What geographic area have you observed this species in?).

MNAP reviewed/verified rank: Please leave this section blank. A botanist or ecologist at MNAP will review and verify the rank.