



# Alberta Native Plant Council

## Recommended Documents for Botanical Surveys in Areas of Proposed Disturbance

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The Alberta Native Plant Council (ANPC) provides *the Recommended Documents for Botanical Surveys in Areas of Proposed Disturbance* to promote the proper inventory of botanical features. It is intended to assist land managers/planners, industry representatives, regulators and consultants in properly identifying the scope of work required to assess botanical diversity in any area of proposed disturbance<sup>1</sup>. By conducting an accurate and thorough assessment of existing vegetation, appropriate protection measures can be established. This document does not preclude other types of vegetation-related assessments, such as vegetation community inventories and wetland assessments. This brief is a compilation of survey guidelines, protocols and other information resources, which the ANPC recommends for use in order to properly conduct botanical surveys in Alberta. The *Recommended Documents* will be updated as new guidelines or protocols become available.

Currently in Alberta, a variety of laws and policies govern the protection and conservation of environmental resources. These laws and policies support and promote the protection, enhancement and wise use of the environment, including the province's biodiversity. Botanical surveys help with gaining an understanding of Alberta's biodiversity, to conserve it and to assess and monitor environmental effects of human activity. Considerable development pressure is associated with considerable cumulative environmental effects from land and water disturbance, habitat fragmentation and invasive species infestations.

Rare vascular plants, rare ecological communities, rare bryophytes and rare lichens are elements of botanical diversity that are of particular conservation concern. Their status is assessed and tracked by the Alberta Conservation Information Management System (ACIMS, formerly ANHIC). Currently in the energy and resource industries, it is a generally accepted practice to survey for rare vascular plants and rare ecological communities on proposed developments

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<sup>1</sup> Disturbance here refers to any activity that alters native vegetation so that it does not perform the same ecosystem function following the activity.

that may affect natural environments. However, these surveys are often not conducted for other disturbances, such as municipal developments, transportation corridors, forestry operations and conversion of native land for farming. It is becoming more common for rare bryophyte and lichen surveys to be conducted on some proposed energy and resource industry developments (e.g., in areas with greater environmental sensitivity; where the development will deleteriously affect air quality and/or regional hydrological regimes; or where there is precedent to do so), but it is not yet the norm for these surveys to be conducted on all proposed disturbance projects.

The ANPC acknowledges the value of all elements of botanical diversity, especially those that have been designated as rare, be they vascular plants, ecological communities, bryophytes or lichens, and the habitats they occur in. The ANPC recommends that surveys for all of these elements should be conducted on all proposed disturbance projects, prior to any on-site work that may disturb the original natural ecology. If surveys for these elements of botanical biodiversity are not conducted on proposed disturbance, rationale(s) should be provided.

The following is a list of internet links to the survey guidelines, protocols and other information resources that ANPC recommends be used for botanical surveys in Alberta. Some of these resources have been developed by ANPC and some by other organizations.

For **rare vascular plants**, *ANPC Guidelines for Rare Plant Surveys in Alberta* is available on ANPC's website at <http://www.anpc.ab.ca/assets/rareplant.pdf>. These guidelines identify the requirements for conducting general rare vascular plant surveys.

For surveys targeted towards **prairie plant species listed under the provincial *Wildlife Act* or the federal *Species at Risk Act***, two documents should be consulted: *Draft Inventorying and Monitoring Guidelines: Prairie Plant Species at Risk*, May 2007, and, *Activity Set-back Distance Guidelines for Prairie Plant Species at Risk*, September 2009. Both are available upon request to Darcy Henderson at Environment Canada, Prairie Region Office [darcy.henderson@EC.GC.CA].

For surveys of **rare ecological communities**, *Draft Ecology Community Sampling Guidelines* is available on the ACIMS (formerly ANHIC) website at <http://tpr.alberta.ca/parks/heritageinfocentre/ecocommunities/samplingguidelines.aspx>. These guidelines identify plant community sampling protocols. Rare ecological community vegetation and site description forms are at <http://tpr.alberta.ca/parks/heritageinfocentre/ecocommunities/forms.aspx>.

For surveys of **rare bryophytes and lichens**, *Terrestrial Field Data Collection Protocols, Bryophytes and Lichens Section* is available on the Alberta Biodiversity Monitoring Institute's website at <http://www.abmi.ca/abmi/reports/reports.jsp?categoryId=0>. This protocol was designed to detect as many species of mosses, liverworts, and lichens as possible during a time constrained search within a one hectare area. The protocols must be modified to suit a specific proposed development and study area.

Additional resources that surveyors should consult are:

- *Vascular and Non-Vascular Plant Tracking and Watch Lists*, on ACIMS' website at [http://tpr.alberta.ca/parks/heritageinfocentre/docs/2009\\_ACIMS\\_TL\\_Sept2009.pdf](http://tpr.alberta.ca/parks/heritageinfocentre/docs/2009_ACIMS_TL_Sept2009.pdf), and
- *Preliminary Lichen Tracking List* on ACIMS' website at [http://tpr.alberta.ca/parks/heritageinfocentre/docs/lichen\\_tl\\_cover.pdf](http://tpr.alberta.ca/parks/heritageinfocentre/docs/lichen_tl_cover.pdf)
- *Preliminary Ecological Community Tracking List* on ACIMS' website at <http://tpr.alberta.ca/parks/heritageinfocentre/ecocommunities/ctl2009.pdf>