



Bulbous bittercress

Cardamine bulbosa

15 to 60 cm



Species likely to be designated as vulnerable or at risk in Quebec



CHARACTERISTICS

- Leaves with slightly undulated or lightly toothed edges.
- White flower with 4 petals.



OBSERVATION PERIOD

Identification : spring

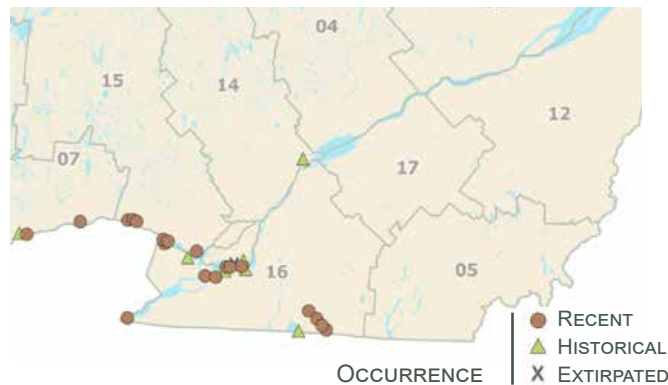
Flowers : mid-May to late June



HABITAT

- Riparian woodlands, stream banks dominated by black ash, alder, willow, cedar, walnut and hackberry (riparian swamps).
- Rich soils.

DISTRIBUTION IN QUEBEC



MAIN THREATS

- Habitat loss (urban or agricultural developments).
- Stream bank fill.
- Drainage of wetlands.
- Cattle grazing of farm woodlands.
- Forest practices not adapted to species sensitivity.



MANAGE YOUR FOREST WHILE PROTECTING AT-RISK FLORA

Your woodlot contributes to the protection of forest species in precarious situations. It is often preferable to avoid forest management interventions in their habitats. If such activities must be carried out, the protection of these species requires the following precautions:

STEP 1: IDENTIFY AND LOCATE THE SPECIES

Onsite, during the appropriate identification period, locate all the plants of the species (or have this done by a competent person). Then outline the zones where they are found (occupied zones) as well as the surrounding buffer zone.



STEP 2: PROTECT THE PLANTS

This species requires particular attention. It is listed as a species likely to be designated as threatened or vulnerable because the available information suggests that its survival is compromised.



STEP 3: AVOID MAJOR DISTURBANCES

in the occupied and buffer zones

- Ø Landing (wood piling) areas
- Ø Forest road construction
- Ø Forest drainage
- Ø Clearcuts
- Ø Scarification of the forest floor



STEP 4 : ADAPT PRACTICES BASED ON SPECIES SENSITIVITY

Sensitivity to opening of the forest canopy

Low to moderate

In the occupied and buffer zones, opening of the forest canopy is allowed. Use partial cuts or low intensity thinning to maintain shade and its beneficial effect on soil moisture.



Sensitivity to drainage pattern changes

High

In the occupied zone, carry out forestry operations in winter, on frozen ground, and keep machinery out of this zone, given the species' sensitivity to changes in drainage and to physical damage.

In the buffer zone, avoid altering drainage and minimize soil compaction: use an adapted skidder or forwarder and plan logging trails on soils with adequate load-bearing capacity.

Sensitivity to trampling and mechanical damage

Low to moderate

In the occupied zone, avoid leaving logging residues (branches, etc.).



If the plant cannot be identified or located, apply the protection measures to the entire forest stand.

Advise forest workers about plant locations as well as protection measures to apply.

This fact sheet was developed through the integration of scientific elements and discussions between experts from the MRNF and the MELCCFP. The recommendations may evolve as new knowledge becomes available. For references, please visit afm.qc.ca/fiches-paf-bonifies.