



Swamp white oak

Quercus bicolor



Species likely to be designated as threatened or vulnerable in Quebec



CHARACTERISTICS

- Tree with dark, fissured bark, and hanging, twisted lower limbs.
- Similar to bur oak except that the leaves are velvety underneath and the bark on small branches appears to crack and peel rather than corky (both species can hybridize).
- Fruits are acorns supported by 2 to 10 cm long peduncles (stalks), often attached in pairs.



OBSERVATION PERIODS

Identification : summer Flowers : spring (at leaf flush) Fruits : August and September



HABITAT

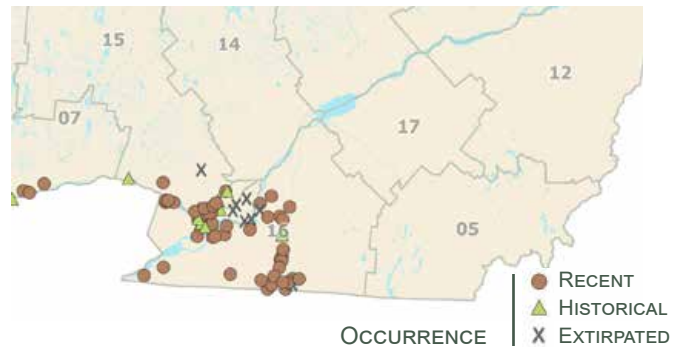
Wet lowlands:

- Swamps and marsh edges.

Clay banks, floodplains:

- Open silver maple stands.
- More rarely in more or less pure oak stands.

DISTRIBUTION IN QUEBEC



MAIN THREATS

- Interventions affecting the flood patterns in floodplains (the tree is sensitive to prolonged flooding or drying out of the soil).
- Forest practices that are not conducive to species regeneration.

The low number of occurrences, which often corresponds to very small local populations with low viability, increases the vulnerability of the species.

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 care. It is listed as a species likely to be designated as threatened or vulnerable because the information available 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

Avoid cutting Swamp oak specimens and protect its regeneration.

In the occupied and buffer zones, partial opening of the forest canopy is allowed, since the species tolerates high levels of sunlight. Use partial cuts or low-intensity thinning, or even medium-intensity thinning if conditions prevent the establishment of invasive competitive species.

Sensitivity to drainage pattern changes

High

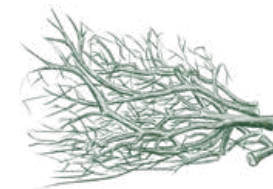
In the occupied zone, carry out forestry operations during the winter on frozen ground and, if possible, with snow cover to limit root damage, soil disturbance and compaction that could lead to the establishment of competing species. A thick litter layer is favorable to oak acorn germination.

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

High

In the occupied zone, when young seedlings are found, 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.

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