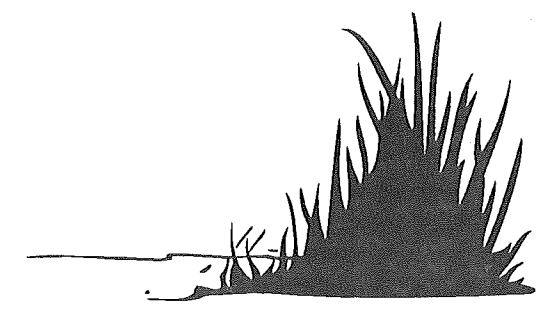


# Wetland Ecology and Plant Guide



so that they will remain in the area but not become overpopulated, thus ensuring that their dam will be maintained.

Through a self-regulating overflow pipe installed in the beaver dam, water levels are maintained at a level that is consistent with the seasons and appropriate for orchid growth. Vegetation management consists of selective thinning of competing trees and protection of unique and important plants in the fen.

This is a natural area. Thank you for leaving it as you found it.

- Use marked trails and stay on boardwalk.
- Do not pick the orchids or other plants.
- Keep pets on a leash.
- Motor vehicles are prohibited.
- Overnight camping, open fire and firearms are not permitted.
- Use at your own risk; this is an unsupervised area.

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## Beaver Pond and Marsh

Beavers built a small dam on the creek that drains the water from this area. The resulting pond and shoreline is a marsh, with open water and a small perimeter of aquatic plants, such as water lilies and cattails. This area supports the beaver, a variety of ducks and several small fish populations.



## Wet Thicket and Swamp

The wet thicket and swamp areas are visible near the beaver dam and along the north shore of the pond. A swamp is a wooded area where shallow water stays for long periods of time. The wet thicket contains small alder and willow, whereas the wooded marsh has larger cedar and tamarack trees. As is often the case with wooded swamps, these trees have been standing in water too long and many have now died.

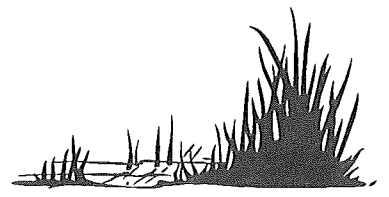
## Wetland Management

The wetland is maintained because of management techniques applied over the years. These include regulation of water levels, management of the beaver population, and maintenance of the vegetation in the wetland. The beaver population is controlled

## Fen Wetland

There are four major categories of wetlands: swamps, marshes, bogs, and fens. Purdon Conservation Area contains three: a marsh, a swamp and a fen. Of all the types, the fen is the most important at this site.

A fen is defined as a "peatland characterized by surface layers of poorly-to-moderately composted peat, and often well-decomposed peat near the base. It is covered by sedges, although grasses and reeds may be associated in local pools. Sphagnum [moss] is usually subordinate or absent, but other mosses are common. Often there is much low-to-medium height shrub cover and sometimes a sparse layer of trees. The water is less acid than in bogs and sometimes shows somewhat alkaline reactions. A fen usually develops in restricted drainage situations where oxygen saturation is relatively low and mineral supply is limited. Very slow, internal drainage usually occurs through seepage down very slight gradient slopes, although sheet flow may occur during spring melt or periods of heavy precipitation.\*



\* Environment Canada

## Flowers

### Showy Lady's Slipper Orchid



This wetland flower grows as tall as 90 cm and has 3-7 ribbed, elliptic leaves. The leaves and stalk are fairly stout and hairy. The flowers bloom from mid-June to mid-July and can be identified by the veined, rose-pink, pouch lip, and the waxy-white ovate-lanceolate sepals and petals that frame the lip.

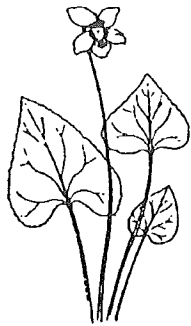
### Leafy White Bog Orchid

This orchid is 30-100 cm high and grows in wetlands. It has up to 12 long, thin leaves that become smaller toward the top of the green stem. The numerous small white orchids have a long tapering lip and spur. The flower cluster forms a spike at the top of the stem.

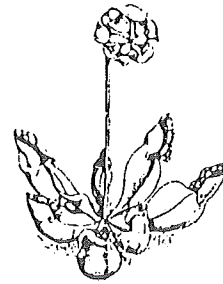


### Marsh Blue Violet

This small, violet coloured flower blooms in the spring. The flower stalk, rising above heart-shaped leaves, has petals that darken towards the throat and a shorter lower petal. The plant grows 12-25 cm high.



### Pitcher Plant



This distinctive wetland plant has hollow pitcher-like basal leaves that hold rainwater and trap insects to digest for nutrients. The red nodding flower that blooms from late spring/early summer is on a separate stalk.

### Twinflower

This evergreen plant grows in Ontario's cool, moist, shady woods and blooms in late spring/early summer. Two nodding flowers on each stem are small, delicate, pink-white and funnel-shaped. The leaves are shiny and oval.



### Bog Bedstraw

These fine, delicate plants have whorls of small leaves with clusters of very small, white flowers that bloom throughout the season. The square stem can be up to 75 cm long.



### Blue Flag

These violet coloured, large, showy flowers grow up to 1 metre high and bloom from May to July. The petals are prominently veined. They are similar to the garden variety of iris and have long blue-green, sword-like leaves.



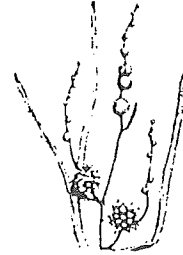
## Grasses

### Slender Cotton Grass



This grasslike plant is actually a sedge that thrives in wetlands and grows to about 1 metre in height. The numerous, long, silky bristles give its fruit clusters the appearance of cotton.

### Bur-Reed



The bur-reed is an erect plant that grows 30-200 cm and has long, thin leaves. The flowers are green to brown and form a bur-like ball that blooms throughout the summer.

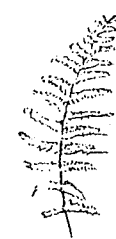
### Water Horsetail

This is the smoothest and hollowest of the horsetails, with a number of branches that start half way up the stem and are long and whorled. It grows to approximately 1 metre in height and ¼ cm thick.



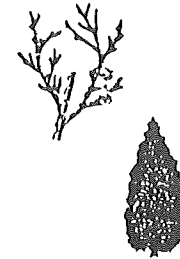
### Marsh Fern

This thin, green, delicate fern grows in sunny moist areas. It can be 45 cm tall and 15 cm wide (at the base.) There are usually 12 pairs of leaves and 12 pairs of rounded leaflets per leaf.



## Trees and Shrubs

### White Cedar



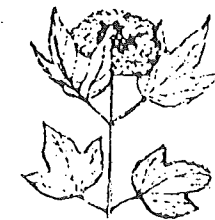
The white cedar adapts readily to most habitats in Ontario. This pyramid-shaped tree, with low growing branches, has small, scale-like leaves that give a jointed appearance to the branchlets. It has a grey-brown, scaly bark.

### Tamarack

This tall, slender conifer has blue-green needles which are borne singularly in clusters of 10-20 along the twigs. Though the tamarack is a conifer, it is not an evergreen and the leaves turn yellow and are shed in autumn.



### Highbush Cranberry



This shrub is crowned with small, white, flat-topped flower clusters which bloom in June and July. The 1 cm long berries ripen to a red-orange by September. The shrub itself grows to about 5 m high and has toothed leaves.

## References and Drawings

*Peterson Field Guides  
Trees, Shrubs and Flowers  
Stokes Nature Guides*