

# Bogs

Bogs are peatlands that have deep deposits (>40 cm) of poorly decomposed organic material (referred to as peat). They are elevated above the surrounding terrain and receive water and most nutrients from precipitation. Bogs are the most nutrient-poor wetlands in the eastern boreal forest.

## Ecological Benefits

- \* Due to deep organic deposits, bogs store large amounts of carbon and help to moderate climate change
- \* Important habitat for the threatened woodland caribou
- \* Important water storage/recharge areas on the landscape that release water in dry periods and store water in wet periods

## Types of Bogs

- \* *Treed Bog*: Sparsely vegetated and stunted (<10 m) black spruce with sphagnum moss and low-lying shrubs
- \* *Shrubby Bog*: Low-lying shrubs and sphagnum moss
- \* *Open Bog*: sphagnum moss dominated with sparse non-woody vegetation



*Treed Bog*



*Shrubby Bog*



*Open Bog*



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Treed Bog (note 25-60% canopy closure)



Sphagnum Moss

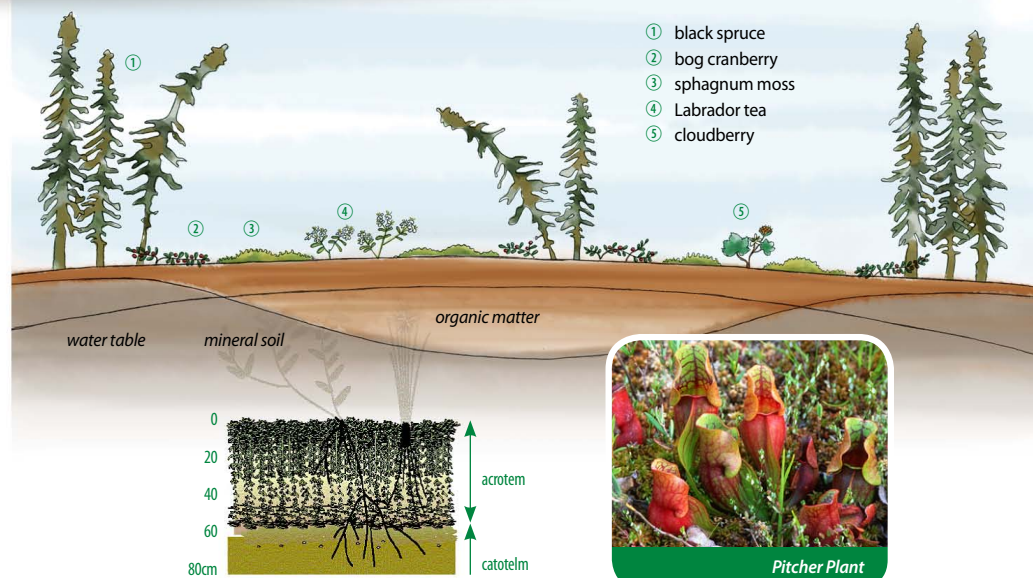
## Identifying Characteristics

### Vegetation

- \* Low plant diversity due to lack of nutrients
- \* Tree and ground lichens can be abundant
- \* *Treed Bog*: stunted black spruce (25- 60% canopy closure) with sphagnum moss ground cover (>20%)
- \* *Shrubby Bog*: low-lying shrubs (e.g. Labrador tea, bog cranberry >25%) with sphagnum moss (>20%) tree cover <25%
- \* *Open Bog*: sphagnum moss dominated with scattered herbs/forbs, such as cotton grass and sedges; tree and shrub cover <25%

### Hydrology

- \* *Water source*: precipitation from snow and rain
- \* Stagnant, non-flowing systems isolated from surface run-off and groundwater/ nutrients
- \* Capillary action of sphagnum moss maintains the water table at or below the ground surface

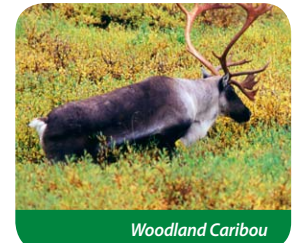


### Soil

- \* Peat deposits (> 40 cm) accumulating over long periods of time because decomposition is very slow in the wet, cool, anoxic (oxygen deprived) environment
- \* Two distinct peat layers (*above*):
  - Acrotelm - living top layer (30-50 cm)
  - Catotelm - lower, non-living layer



Pitcher Plant



Woodland Caribou



## Resources

- \* Ducks Unlimited Canada in the Boreal Forest – [borealforest.ca](http://borealforest.ca)
- \* Ducks Unlimited Canada Natural Values Fact Sheet Series – [ducks.ca/learn-about-wetlands/what-wetland](http://ducks.ca/learn-about-wetlands/what-wetland)
- \* North American Wetlands Conservation Council: WetlandNetwork – [wetlandnetwork.ca](http://wetlandnetwork.ca)



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