Treed Bog

Shrubby Bog

Open Bog

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 western 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

Bogs

Treed Bog (note >25-60% canopy closure)

Sphagnum Moss

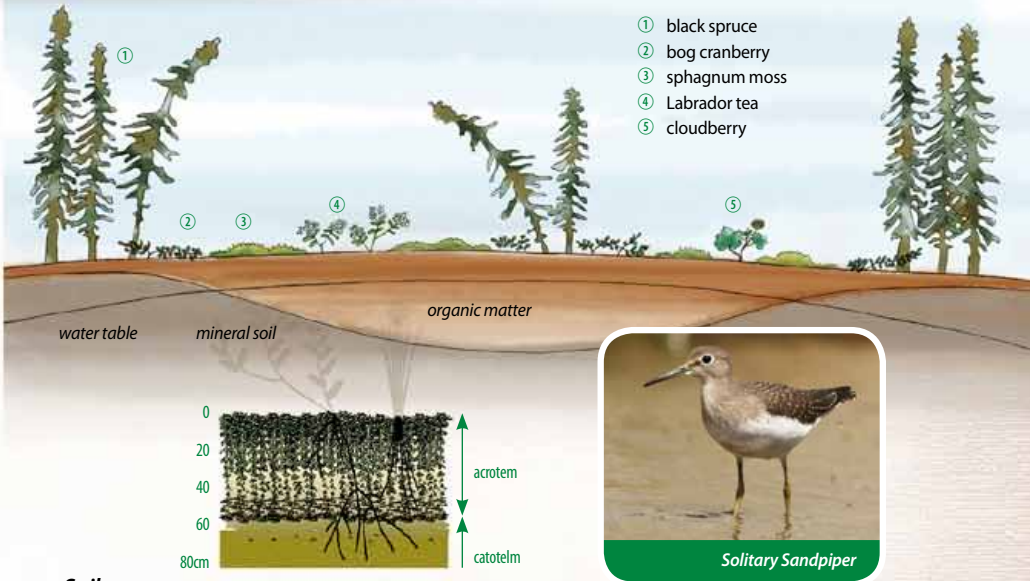
Identifying Characteristics

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)*:
  - Acrotem - living top layer (30-50 cm)
  - Catotelm - lower, non-living layer

Solitary Sandpiper

Woodland Caribou

Resources

- Ducks Unlimited Canada Natural Values Fact Sheet Series (ducks.ca/naturalvalues)
- Field Guide to the Wetlands of the Boreal Plains Ecozone of Canada (ducks.ca/boreal-field-guide)
- Ducks Unlimited Canada Western Boreal Program (borealforest.ca)

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