

Getting to Know your Wetland Activity

To help you practice identifying wetland features and wetland types we have created this basic wetland assessment protocol. You only have to do this assessment of your wetland once. But we encourage you to use it at other wetlands to practice identifying wetland type and noticing other key wetland features.

1. Can you see any standing/open water in the wetland? Describe where you see it in the wetland.

2. Draw a very basic picture of the wetland depicting "land" vs open water. Use it to estimate the percent of the wetland covered by open water and the percent covered by "land". For example, here are three simple drawings of wetlands showing 80%, 10%, and 50% cover by water.

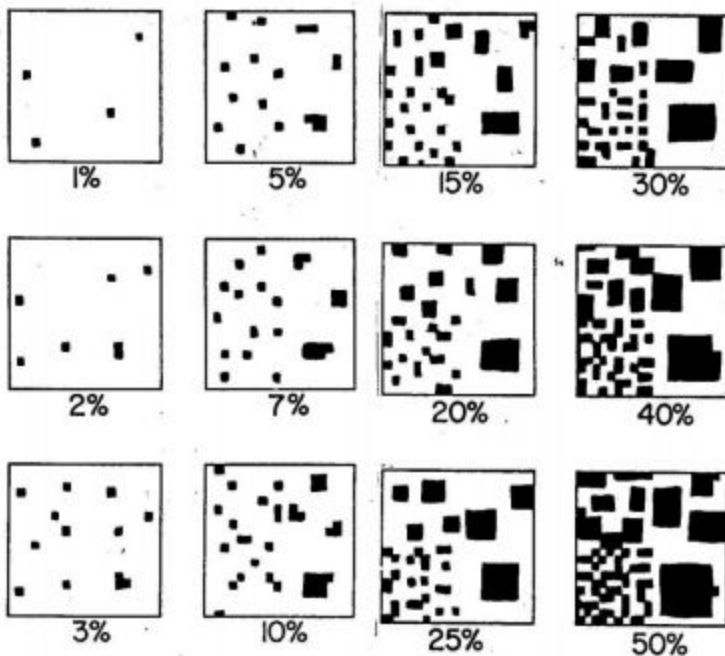


3. If surface water is visible, does it look like it is connected to another water body?

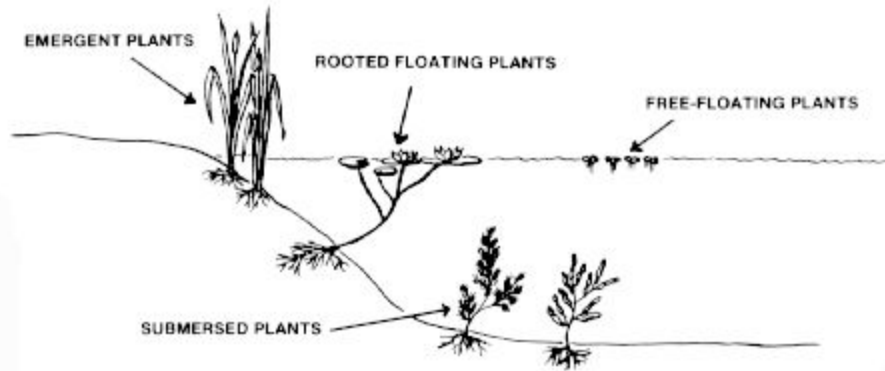
4. Are there trees in the wetland? Are you able to identify if they are coniferous (has needles) or deciduous? Are you able to identify any species? (see the [Wetland plant species guide](#) for some common trees).

5. Are the majority of the trees dead or alive?

6. Estimate the percent of the wetland that trees cover. To help visualize here are some schematics that show percent cover up to 50%.



7. If there is standing water in the wetland, can you see any aquatic plants that fit into these categories? Are you able to identify any of the plant species? (Wetland plant species guide can help)



Vegetation type	Description of plants
Emergent	
Floating	
Submergent	

8. Is there moss present? Does the moss form a large, thick carpet covering much of the wetland? Do you notice if the moss creates any mound like shapes (hummocks)?

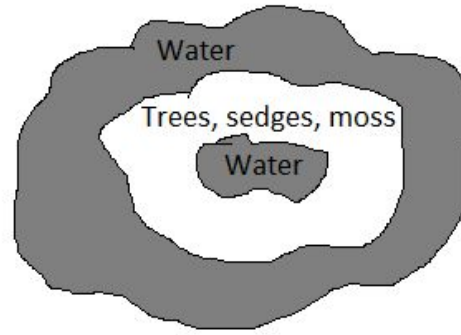
9. Using this chart identify what type of wetland(s) are present at your site. You might need to refer to the [Wetland plant species guide](#) for help with identifying indicator plant species when distinguishing between a bog and fen.

***** REMEMBER: more than one wetland type can be present at your site!**

Bogs	Fens
<p style="text-align: center;">*Not safe to walk on</p> <p style="text-align: center;"><i>Isolated wetlands with thick sphagnum moss mat and low plant diversity.</i></p> <ul style="list-style-type: none"> ● Thick floating mat of spongy sphagnum moss that may or may not have humped mounds (called “hummocks”). ● Less than 25% of wetland is covered by trees. ● Most trees are Black Spruce. ● If Tamarack are present they are outside around the edges and probably small. ● Dead trees may be present - acidity of peat and bog water make it hard for trees to survive. ● Very few plant species are present - acidity of bog makes it hard for most plants to survive. ● If there is open water, it is isolated in the middle of the bog and is not connected to other water bodies outside the bog. ● There is not always open water. 	<p style="text-align: center;">*Not safe to walk on</p> <p style="text-align: center;"><i>In TLB fens resemble bogs but have more plant species and larger trees.</i></p> <ul style="list-style-type: none"> ● Portions covered by thick sphagnum moss that may or may not have humped mounds (called “hummocks”). ● There can be more trees and shrubs than in bogs (although tall tree cover still doesn’t exceed 25%, though smaller shrub cover might). ● Most trees are Tamarack. ● If Black Spruce are present there are only a few, and they are outside around the edges. ● More plant species are present than in bogs because fens have some groundwater flow into them which supplies more nutrients and supports more plant species. ● There can be a ring of water outside of the ring of sedges/trees and moss vegetation that is part of the wetland. ● There is not always open water.



- If any of these species are present, you can confirm it is definitely a bog because they are indicator species (grow in bogs but not in fens)
 - *however, these species are not always present in all bogs
 - Black Spruce (unless around the outer edges)
 - Mountain Holly
 - Bog Laurel
 - Sheep Laurel
 - Virginia Chain Fern
- There are other plant species you will find in bogs in addition to these, but they are not indicator species. See the **Wetland Plant species guide** for common bog species.



- If any of these species are present, you can confirm it is definitely a fen because they are indicator species (grow in fens but not in bogs)
 - Bog Rosemary
 - Bog Willow
 - Buckbean
- There are other plant species you will find in fens in addition to these, but they are not indicator species. See the **Wetland Plant species guide** for common fen species.

Marshes	Swamps
<p data-bbox="207 277 789 348"><i>Emergent and floating vegetation, often have open water.</i></p> <ul style="list-style-type: none"> <li data-bbox="214 386 782 525">● Areas that permanently have standing or slowly moving water, or are periodically flooded. <li data-bbox="214 541 656 575">● Water can be up to 2m deep. <li data-bbox="214 592 782 730">● Characterized by <u>emergent plants</u> (like Cattails, Bulrushes, Wild Rice) in water less than 1 m deep. <li data-bbox="214 747 701 886">● In open water you may also find <ul style="list-style-type: none"> <li data-bbox="246 802 701 835">○ <u>Floating plants</u> like Duckweed <li data-bbox="246 852 701 886">○ <u>Submerged</u> plants like milfoils. <li data-bbox="214 903 721 936">● You will not find trees in marshes. <li data-bbox="214 953 740 1037">● May occur along the edge of a lake, pond, or other water body. 	<p data-bbox="1000 277 1237 310"><i>Wooded wetlands.</i></p> <ul style="list-style-type: none"> <li data-bbox="837 348 1260 382">● Trees characterize swamps. <li data-bbox="837 399 1325 483">● More than 25% of the wetland is covered by trees and tall shrubs. <li data-bbox="837 499 1409 743">● Common trees found in swamps: <ul style="list-style-type: none"> <li data-bbox="870 554 1409 638">○ Coniferous: Tamarack, White Cedar, Black Spruce <li data-bbox="870 655 1409 743">○ Deciduous: Silver Maple, Red Maple, Black Ash. <li data-bbox="837 760 1295 844">● There may be many pools and channels. <li data-bbox="837 861 1334 945">● Water is not flooded as deep as a marsh. <li data-bbox="837 961 1386 1100">● There can be many dead standing trees because of low oxygen levels in water logged soils. <li data-bbox="837 1117 1318 1201">● Water can be standing or gently flowing. <li data-bbox="837 1218 1409 1302">● May occur along the edges of streams, rivers, ponds or other water bodies.

*A note about fens: In Ontario, south of The Land Between fens have more sedges and grasses which makes them look less like bogs, and you can find White Cedar and some Black Ash in addition to Tamarack.

*A note about marshes: We used the Ontario Wetland Evaluation System (southern manual) as a guide for this activity and training. It uses four main wetland classes. If you follow the Canadian Wetland classification system, it distinguishes between marsh and open shallow water wetland (the OWES system and ours lumps these 2 together). The national system calls marshes wetlands shallower than 1 m with lots of emergent vegetation, and open shallow water wetlands as wetlands with open water between 1m and 2 m deep with lots of submerged and floating vegetation.