

Peatlands

Peatlands - areas in which peat accumulates

Peat - incompletely decomposed organic material, mostly aquatic plants and mosses
peatlands is a generic term including bogs, fens, moors, muskegs, heath, mire, highmoor and lowmoor.

Peatlands - are characterized by 1). precipitation in excess of evapotranspiration 2) accumulation of organic matter faster than decomposition Note: primary productivity may be very low, but decomposition is lower.

Most peatlands are in high latitudes with year round cool and wet weather. Southern limits on peatlands are set by dryness of summer. Large areas of peatlands are found in Central Canada up to Central Alaska, Western Siberia, most of Scandinavia. Small parts of southern Chile, Argentina, and South Island of New Zealand also contain wetlands.

In general a bog receives water almost exclusively from precipitation. Mineral deficient. Sphagnum moss dominated, tend to be very low in pH < 4

A fen receives surface or groundwater, more mineral rich, vegetation includes reeds, sedges and some mosses. Tend to be higher in pH, but still acidic 4.1 to 5.0 A rich fen is one that is higher in pH and mineral content.

Ombrogenous - dominated by precipitation

Geogenous - open to surface or groundwater

Formation of bogs

1. Quaking peatland succession - classic infilling of ponds
2. Paludification - mosses overgrow dry land, compacted peat forms water boundary allowing moss to spread.
3. Flowthrough succession - forming a center island of peat which expands.

Ecological importance - huge carbon sink

Water purification.

Graze for large and small mammals.

Many birds nest in these regions

Home to Pitcher plants. Which capture insects and other pests.

Also see [Other peatlands lecture notes](#)