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 Scandanavia. 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