

Habitats

All wetlands have 3 characteristics in common: vegetation - support predominantly hydrophytes hydrology - saturated soil, flooded for some time in a year soil - hydric soil or non-soil substrate (gravel or sand)

1) Wetlands

Type	Distribution	Aquatic Plants	Hydrology
Freshwater marshes	widespread	grasses, sedges (<i>Carex</i>)	seasonal to permanent flooding
Tidal Marshes	coastal	halophytic grasses (<i>Spartina</i>), sedges (<i>Juncus</i>) /rush	daily, monthly (salt and brackish) flooding
Prairie Potholes	Northern Plains	grasses, sedges, temporary to herbaceous plants	permanent flooding
Fens	near mineral rich soil	grasses, sedges, shrubs, and trees	permanently flooded with flowing water (peat accumulating)
Bog (moor) peat accumulating	-caused by glaciation	sphagnum moss, shrubs, trees, desmids	frequent precipitation -no significant in-flow or out-flow
Swamp	fairly widespread	large trees (Cypress, Gum) (<i>Taxodium nyssa</i>)	prolonged standing water
Bottomlands	along streams and rivers	large trees (Oaks, Maples)	seasonal flooding but also an annual dry periods
Mangroves	tropical/subtropical regions	red, white, black mangrove spp. (<i>Rhizophora</i> , <i>Avicennia</i> , <i>Laguncularia</i>)	tidal flush & freshwater coming in
Vernal Pools	Texas, California	Aquatic grasses, algae	Seasonal flooding

Slough	CA, Gulf Coast	Sedges, Halophytes	Permanently flooded -slow flow
Bays, Lagoons	coastal areas	seagrasses (Eelgrass, turtlegrass)	open salt water
Playas	southwest U.S.	only along edges, grasses, some sedges	seasonal wetland
Riparian Areas	widespread,	any type of grasses, sedges, trees	periodic flooding, high water table riverine environment

-Cienega - freshwater marsh, usually in riparian zone

-In the southwest US and Mexico a similar ecological zone is called a bosque - a gallery forest, usually in a riparian zone. These are populated by mesquite trees and grasses, and are usually only flooded in really big storms)

-Riparian zones represent an area between aquatic environments and terrestrial ecosystems.

-Riparian zones are extensive in the eastern US. One survey reported 22.9 million hectares in the continental US (mostly in the east) plus 12 million more in Alaska.

-These areas have been heavily settled, farmed, logged, and irrigated.

-Arizona has about 100,000 hectares left.

-In higher elevations, alders and poplars are common riparian trees. Cottonwood, willows, and ash are found in lower elevations

3) Open Water Habitats

Definitions:

Lentic - open water ponds and lakes having submergent plants in the middle, some emergent vegetation along the sides, and sometimes floating plants, especially in the tropics.

Lotic - flowing waters, streams and rivers, mostly having submerged and emergent plants.

The plant distribution in open water is controlled by the turbidity of the water, the availability of sunlight for photosynthesis (competition with algae), and water motion.

4) Anthropogenic (manmade)

Reservoirs and irrigation systems are examples of manmade aquatic environments. These are dependent on substrate (sometimes concrete or soil conveyance systems), water flow, and nutrients (return water is nutrient rich in an irrigation system).

-*Pondweed*, *Potamogeton*, Spiny Naiad, and *Chara* are all common on concrete substrates.

Book uses this organization:

Coastal wetlands

- Tidal Salt Marshes
- Tidal Marshes
- Mangrove Wetlands

Inland Wetlands

- Inland Freshwater Marshes
- Northern Peat Lands
- Southern Deepwater Swamps
- Riparian