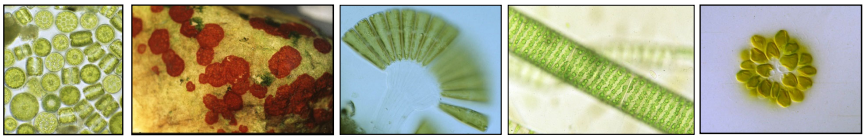


Moors & swamps

Aquatic Biodiversity
Univ. Prof. Dr. Michael Schagerl

Peat bogs: peat deposits including peat forming vegetation cover

decay (Verwesung = high O_2) – rotting (Vermoderung = low O_2) – putrescence (Fäulnis = no O_2)

Peat formation (Vertorfung): first rotting followed by putrescence

Developement of peat bogs

- **limitation of aerobic microbial decomposition**
- **increased water supply**
- **high humidity**
- **productivity must be higher than decay**

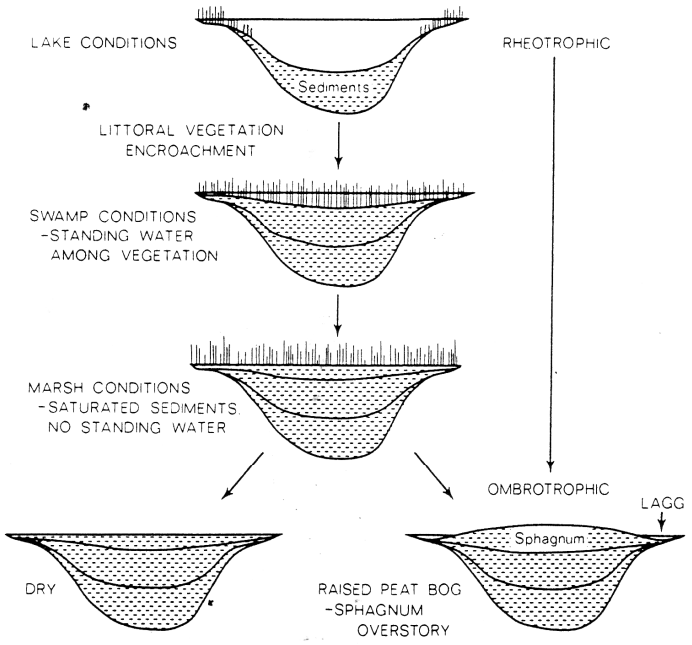


Figure 24-10. Frequently observed ontogeny of shallow lake systems through swamp and marsh stages to terrestrial conditions or to raised peat bogs. See text for discussion.

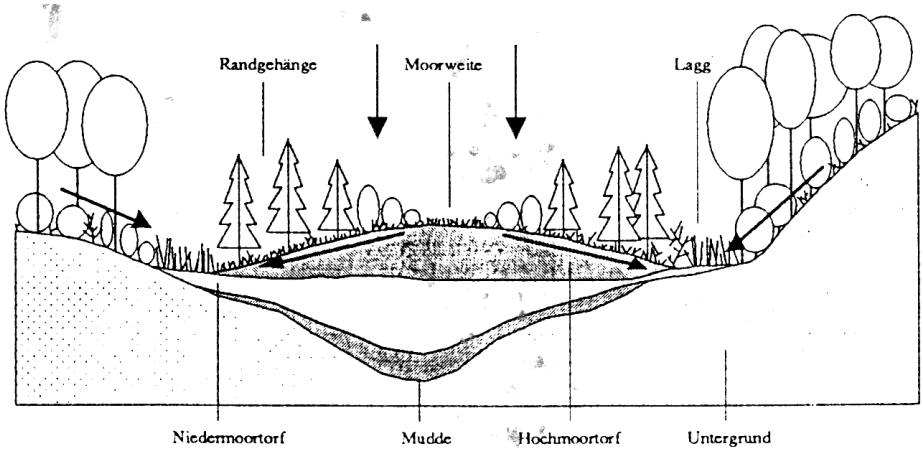


Abb. 13: Schematischer Querschnitt durch ein Hochmoor, das aus einer Seenverlandung entstanden ist

Fens (Niedermoore): minerotrophic (connected to ground water), occur worldwide, independent from climatic regions

Peat bogs (Hochmoore): ombrotrophic (highly dependent on local precipitaion), in humid regions

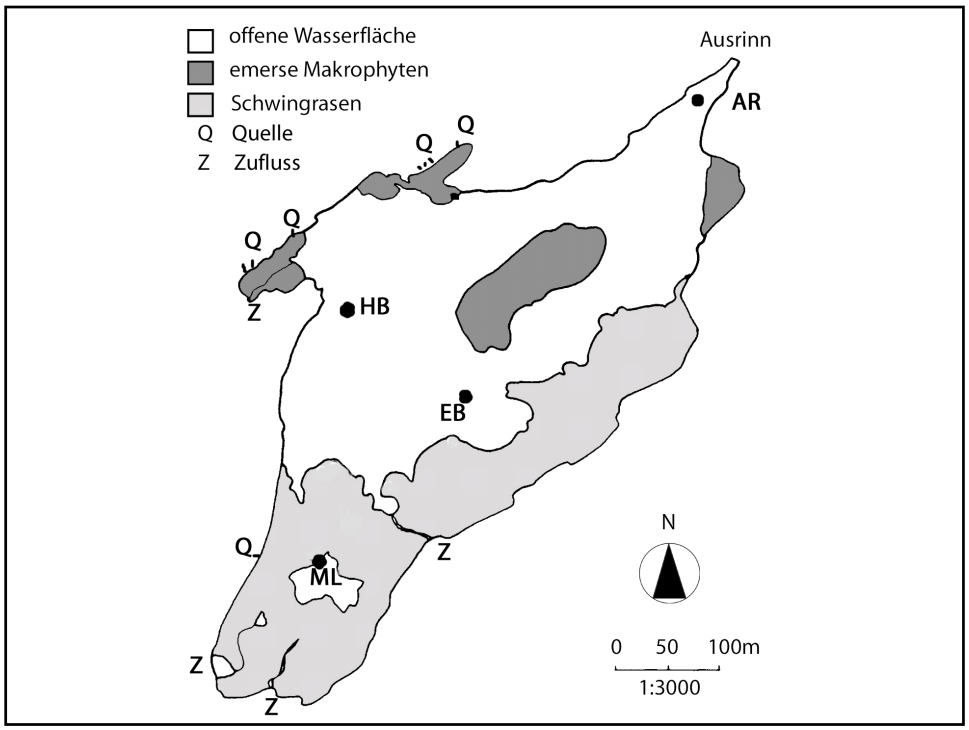
Transition bogs

Peat moss (Sphagnum) is a central element of peat bog formation

- **extremely high water retention**
- **unlimited tip growth, older parts die and partly decay**
- **cell walls act as cation exchanger**

Higher vegetation of peat bogs

- **perennial plants (no annuals)**
- **xeromorphy**
- **wintergreen species**
- **mycorrhiza**
- **carnivory**
- **Aerenchym in rootbarks**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