

## Nature facts (About the Aquatic plants)

### 1. What are hydrophytes?

Hydrophytes are plants that are adapted to live in aqueous environments such as ponds, lakes, and rivers. They are either fully submerged, floating on the surface, or partially submerged. Compared to other plants, hydrophytes lack a completely developed root system. They have spongy tissues with air spaces in the stems, roots, and poorly developed xylem vessels in their leaves.

### 2. What are Macrophytes?

Macrophytes are big-sized plants that can be seen with the naked eye and develop in or near water. These plants are either floating on the water's surface, completely underwater, or rooted in shallow water or sediments.

### 3. How are aquatic plants categorized?

Aquatic plants are categorized into four groups: emergent plants, submerged plants, floating leaf plants, and free-floating plants.

**a) Emergent plants** are plants that develop in the water but extend their leaves and stems over the surface. These adaptations help them to do food photosynthesis and to pollinate the flowers. *Cyperus papyrus*, *Typha* species, flower rush, wild rice, and purple loosestrife are examples of emergent plants.

**b) Submerged plants:** Submerged plants are plants that develop completely underwater. They have either deep root systems or free-floating roots and get nourished by absorbing nutrients from the water with the help of their leaves and stems. *Elodea*, eelgrass, American pondweed, and hornwort are some examples of submerged plants.

**c) Floating leaf plants** have root systems that are attached to the bottom of the water, and their leaves float on the surface of the water. They have unique, lightweight, spongy tissue known as aerenchyma. They have broad, plate-like, and flat leaves. They have extended, thin, flexible stems along with hollow channels. Water lilies and pondweeds are some examples of these plants.

**d) Free floating plants:** Plants that float on the exterior surface of water are known as free-floating plants. They possess a free-floating root system, a waxy coating on their leaves to repel water, and can be easily relocated by wind. Duckweed, water lettuce, watermeal, and mosquito fern are some examples of free-floating plants.

## References

- [https://en.wikipedia.org/wiki/Aquatic\\_plant](https://en.wikipedia.org/wiki/Aquatic_plant)
- <https://www.britannica.com/plant/tree/Tree-bark>