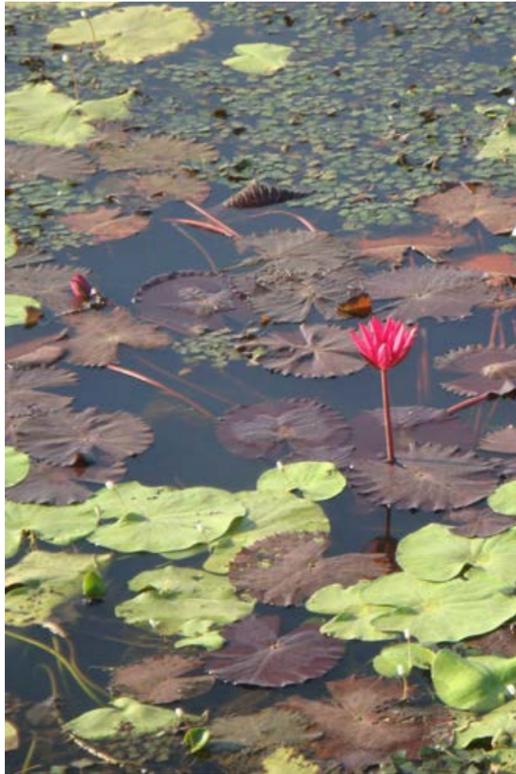




# Aquatic Plants

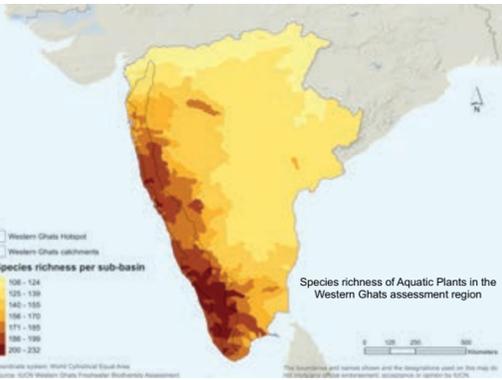


BA Daniel

The Sahyādrī AQUATIC PLANTS



ZOO/WILD Field-out #4 - Sep 2013



The Western Ghats or 'Sahyadris' is home to some very unique flora, fauna and fungi. Sahyadri's freshwater ecosystem and biodiversity are highly diverse supporting livelihoods, providing invaluable ecosystem services and sustaining more than 400 million people in the world's highest concentration of humans in a biodiversity hotspot.

Water plants are other-wise known as hydrophytes. They grow in water or in soil that is permanently saturated with water. They spend their entire life or at least a critical part of their life cycle in water, either totally submerged or immersed or floating. They play a major role in providing aquatic fauna like fish - a safe and nutrient rich habitat.

Water plants can be classified into 6 types:  
 1) free floating, 2) totally submerged, 3) bottom rooted  
 4) floating, emergent and rooted, 5) totally emergent and  
 6) stream bank and wet area plants.

These plants readily respond to changes in water quality parameters like salinity, nutrient levels, pollution and therefore play a crucial role as bio-indicators in assessing the environment or habitat quality.

This fold-out is a small selection of hydrophytes and monsoon enriched lithophytes and ephemerals of the Western Ghats that have been assessed for their IUCN Red List status. Nearly 20% of the 608 species of aquatic plants are threatened in the Western Ghats. For more information see <http://www.iucn.org/dbtw-wpd/edocs/RL-540-001.pdf>

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Produced by WILD in collaboration with ZOO through a grant from Critical Ecosystem Partnership Fund (CEPF)  
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## Non Flowering Plants - Algae



Show Rytu

Supports aquatic fauna and is food for terrestrial vertebrates.

## Non Flowering Plants - Ferns



Mutalisp

Grows in primary forest on rock surfaces, especially along streams and under deep shade.



Dinesh Valke

The golden leather fern or Mangrove fern grows in mangrove swamps. Rhizome is used to cure wounds and boils.



Eyeveed

Free-floating herb. Grows in quiet and slow-moving water bodies. Popularly known as water velvet. Used as a natural fertilizer in paddy cultivation.

## Non Flowering Plants - Fern allies



Solomon Jeeva

Forms cushion on dry land and spreading and creeping in water. Found in shallow pools, edges of ditches.



Solomon Jeeva

Indicator of water quality. Stems eaten by rodents.

## Flowering Plants - Dicotyledons



Dinesh Valke

Grown as ornamental plants. Composite are medically important. Copious nectar producers.



Foggy Forest

Insects and herbivores are dependent on this.



Jardini Lautaret

Water cress are wildfowl food. Many of this family are food crops e.g., cauliflower, cabbage.



Keystone Foundation

Source of Soda ash. Amaranths are popular garden ornamental plants.



Dinesh Valke

Some plants of Spurge are effective against genital herpes.



Dinesh Valke

Most economically important crops are known in this family.



Aquascapingworld.com

Cultivated in aquaria. Peppermint is from this family.



Dinesh Valke

Some species of the family are used as a counter irritant for rheumatic pains.



Dinesh Valke

Some species are cultivated for decoration. Possess several medicinal properties.



Karl Gereens

Fruit is edible.



Vinayraj

Used for dyeing silk and as medicine.



Somita Hill

Provide protection to fish-spawn and to snails. Used in aquaria for its high oxygen production.

## Flowering Plants - Dicotyledons



Cultivated for decoration. Rhizomes are edible. Plant parts used as medicine.



Rich with alkaloids and glycosides.



Medicinally important plant family.



Imperative medicine in Ayurveda. Known as longevity herb. Improves brain function.



Free-floating herb, popularly known as duckweed. Important food for most wildfowls and fishes.



Popularly known as swamp millet. Serious weed in rice fields. In marshy areas it forms a large cushion.



Common in most of the temperate areas. Popularly known as common rush.



Endemic to lateritic plateaus of northern Western Ghats. A highly threatened species.



Distribution highly restricted. Adhere to hard rocky surfaces in rapids and in waterfalls of rivers.



Source of nectar and pollen for survival of pollinating insects. Tubers are edible.



Showy garden plants. Leaves of some eaten. Some are weeds.

## Flowering Plants - Monocotyledons



Provides shade and shelter for young fishes; tubers and nutlets are food for wildfowls; pollinated by insects.



Used as medicine, fodder and pot herb. Deceive pollinators by appearance. Stingless bees harvest copious pollen.



Endemic to northern Western Ghats. Rare on the monsoon puddles on lateritic plateaus. Only known tuberous Eriocaulon so far. Leaves eaten by water birds. Used to treat skin diseases.



Common in rocky river beds. Cultivated in ponds and aquariums. Flowers open at night and are insect pollinated.



It is submerged plant. Found in still and flowing water bodies. Important food for wildlife.



Tender branches used as vegetable. Used for dispelling fever and stomach pain.



Cultivated for decoration.



In open wet places, often a common rice-paddy weed. India to China through Malaya to tropical Australia.



Endemic to India. Submerged plant, found in flowing rocky stream beds. Inflorescence (appendage part) produces heat, which attracts insects.



Common sedge in western India. Forms tall stands of reed-like swamp vegetation in shallow water. Nutlets serve as food for wildfowl.



A widespread species. It grows in paddy fields, ponds and ditches.



A widespread species. Used in ayurvedic, unani and folklore medicine.



A wide spread wetland species. Stalks and roots are important animal food. Popularly known as cattail.