

Ecological character

The entire area consisted of the lake, vast plains interspersed with pools of water with few tree species such as *Borassus flabellifer*, *Acacia nilotica* and *Azadiracta indica* etc. The shrubs and herbs are of typical coastal vegetation. The entire vegetation of this area can be classified into Aquatic or wetland vegetation and Terrestrial vegetation. The lake is covered by littoral vegetation, predominantly of hydrophytes. It showed variations in different spots with emergent submerged and free floating aquatic macrophytes.

- **Wetland vegetation:** The lake is covered by littoral vegetation, predominantly of hydrophytes. It showed variation in different spots with emergent, submerged and free floating aquatic macrophytes. The floating vegetation dominated by *Ipomea aquatica* and *Eichhornia crassipes* occurred throughout the lake and formed dense mats. The submerged weeds constituted by *Ottelia alismoides*, *Vallisneria spiralis*, *Ceratophyllum* were abundant in deeper parts of the lake and along ferry lines. *Nymphaea nouchali*, *Nymphaea stellata*, *Nymphoides hydrophylla* and *Salvinia cucullata* were moderately distributed in many parts of the lake. The notable feature of the lake vegetation was the presence of extensive stands of *Phragmites karka* which occur in vast stretches in many areas of the lake. Other weeds such as *Cyperus sp*, *Paspalidium*, *Pistia*, *Alternathera* and *Typha* were present in small patches in many parts of the lake. *Utricularia*, *Polygonum* and *Scirpus sp* were distributed in some areas only.

The following macrophytes can be grouped under emergent vegetation:

1. *Phragmites karka*
2. *Typha angustata Bory et chaub*
3. *Cyperus rotandus. L*
4. *Scirpus articulatus. Linn*
5. *Paspalidium flavidum. (retz) Camus*

Floating leaved Hydrophytes

1. *Nymphaea nouchali. Barm. F*
2. *Nymphaea stellata wild*
3. *Nymphoides hydrophylla (Lour) O. Ktze*
4. *Ipomea aquatica. Forak*
5. *Alternathera sessilie (L) R. Br.*

Submerged Hydrophytes

1. *Ottelia alismoides (L) Pers*
2. *Vallisneria spiralie (L)*
3. *Ceratophyllum Sp.*
4. *Hydrilla verticillata*
5. *Chara & Nitella*
6. *Utricularia*

Free floating Hydrophytes:

They occurred in standing or slow flowing waters.

1. *Eichhornia crassipes* (Mart) somls
2. *Pistia stratoites*, L
3. *Salvinia cucullata*
4. Mats of *Azolla*, *Spirodella* and *Lemna*.

Amphibious plants: *Polygonum glabrun*, *sueda maritima* Distribution of aquatic vegetation:

- *Nymphaea stellata*, *Nymphaea nouchali*, *Nymphoides* occurred dispersed throughout the lake especially at Kollatikota, Chatakai, Prattikona lanka. *Paspalidium flavidum*, *Alternathera sessilie* were greater abundance near Komatilanka, Bujabalapatnam, Prattikonlanka Chatakai, Gudivakalank areas.
- *Alternathera sessilie* was mainly present near Pedayadlagadi, Komatilanka and Gudivakalanka areas. *Hydrilla verticillata* were abundant near Kollatikota Lakshmipuram areas and Prattikonlanka, Pandiripalligudem areas.
- *Vallisneria spiralis*, *Ceratophyllum sp.* were mainly distributed in Chatakai, Prattikonlanka, Kolletikota, Gudivakalank areas. Thick mats of *Salvinia* occurred near Pedayadlagadi, Kolletikota areas.
- *Cyperus rotandus*, *typha Angustata*, *Scirpus articulates* occurred in small patches at Pedayadlagadi, Komatilanka, Chatakai, Kollatikota, Gudivakalanka.