Doddagubbi – Sacred Lake of Bengaluru

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Doddagubbi lake (Hebbal Valley, Bidarahalli hobli, Bangalore East) has an area of ~100 acres.
Lake consist of a Sacred Grove. Current Status: Lake is completely damaged and major part of lake is dry now.

Threats : 1. Shallow water body with less water; 2. Untreated sewage water inflow to the lake; 3. Dumping of building debris near to lake; 4. Massive growth of macrophytes; 5. Dried portion of the lake; 6. Damaged fencing

Water Quality

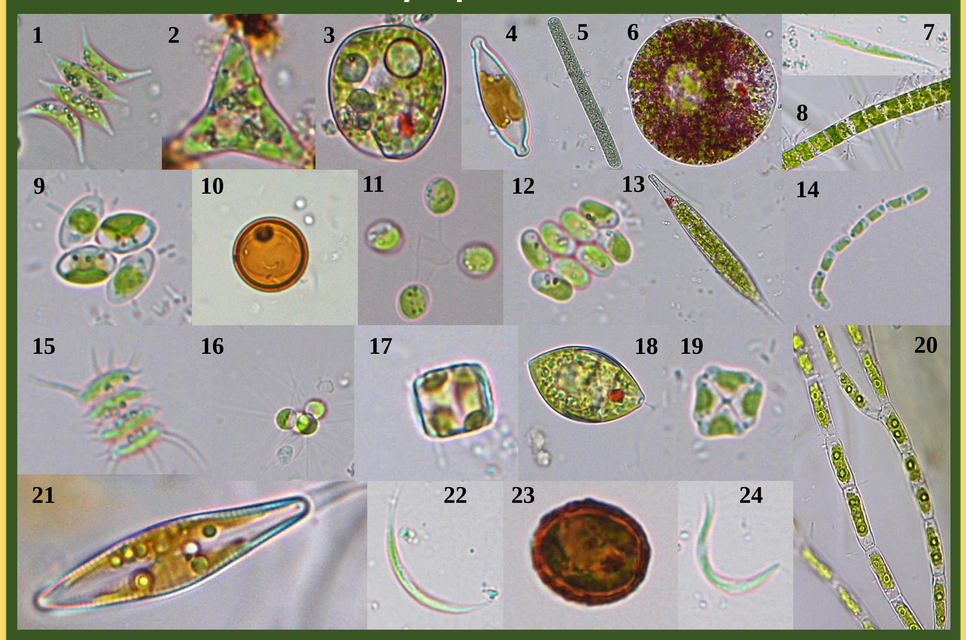
Parameters	Doddagubbi Lake			Water quality Standard IS 10500, 1991-2011	
	Site1	Site2	Site3	Desirable	Permissible
WT (˚C)	22.4	26.3	25.6	-	-
TDS (mg/l)	240	1664	405	500	2000
EC (µS)	335	2230	671	-	-
pH	7.79	8.75	7.2	6.5-8.5	No relaxation
DO (mg/l)	2.93	8.62	0.49	-	-
BOD (mg/l)	16	56.91	32.52		
COD (mg/l)	22	106	54	-	-
Alkalinity (mg/l)	184	504	224	200	600
Chloride (mg/l)	45.44	681.6	90.88	250	1000
Total Hardness (mg/l)	94	70	94	300	600
Calcium (mg/l)	28.06	12.83	24.05	75	200
Magnesium (mg/l)	5.84	9.27	8.28	30	100
OP (mg/l)	0.269	1.787	4.445	-	-
Nitrate (mg/l)	0.455	1.908	0.596	45	100
Sodium (mg/l)	86.5	321.5	95	-	-
Potassium (mg/l)	20.5	12.5	26	-	-

Doddagubbi lake is under high anthropogenic stress with sewage entry. Thus, the lake has high ionic, organic and nutrient content with low dissolved oxygen at two sites.

Macrophyte

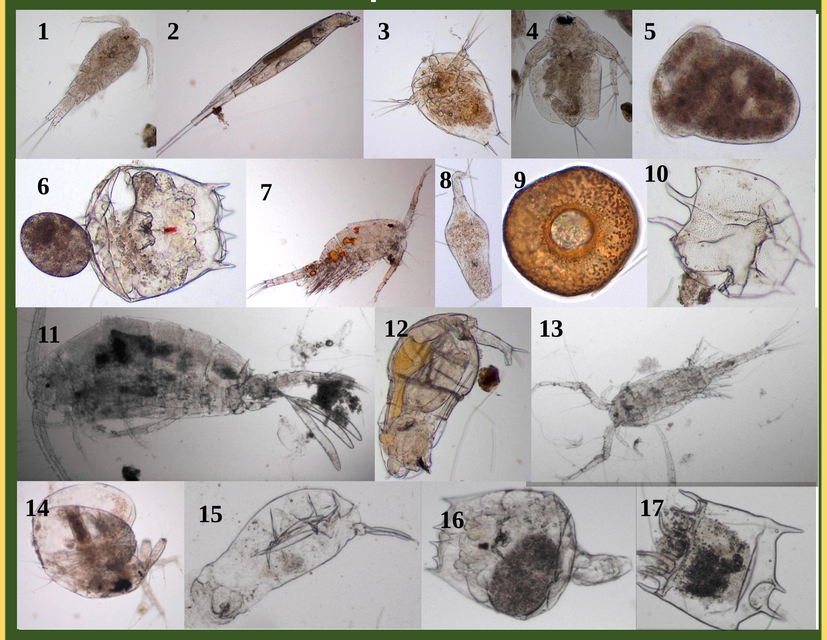
1. Lemna sp., 2. Polygonum sp., 3. Ipomea sp., 4. Hydrilla sp., 5. Typha sp., 6. Nymphaea sp.

Phytoplankton



1. Scenedesmus sp., 2. Tetraedron sp., 3. Euglena sp., 4. Gomphonema sp., 5. Oscillatoria sp., 6. Euglena sanguinea, 7. Monoraphidium sp., 8. Hyalotheca sp., 9. Oocystis sp., 10. Trachelomonas sp., 11. Dictyosphaerium sp., 12. Scenedesmus sp., 13. Euglena sp., 14. Stichococcus sp., 15. Scenedesmus sp., 16. Micractinium sp., 17. Cyclotella sp., 18. Euglena sp.,19. Crucigenia sp., 20. Cladophora sp., 21. Gomphonema sp., 22. Monoraphidium sp., 23. Trachelomonas sp., 24. Schroederia sp

Zooplankton



1. Mesocyclops sp., 2. Philodina sp., 3. Nauplius larvae, 4. Moina sp., 5. Vorticella sp., 6. Brachionus sp., 7. Thermocyclops sp., 8. Philodina sp., 9. Arcella sp., 10. Platiyas sp., 11. Phyllodiaptomus sp., 12. Philodina sp., 13. Thermocyclops sp., 14. Moina sp., 15. Trichocerca sp., 16. Brachionus sp., 17. Platiyas sp.

Birds

1. Ardea cinerea,
2. Ardeola grayii,
3. Ardea alba,
4. Egretta garzetta,
5. Vanellus indicus,
6. Ardea cinerea,
7. Phalacrocorax niger
8. Halcyon smyrnensis

Others

a. Mollusc, b. Crab, c. Fish.

Recommendations

- Ensure proper fencing of the lake
- Restrictions on letting untreated sewage into lake
- Allow only treated wastewater into the lake
- Ban on filling of a portion of the lake with building debris
- The houses alongside the lake should be provided with proper sanitation facilities in order to avoid open defecation
- The lake can be restored immediately
- Regular harvesting/removal of macrophytes in the lake manually

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