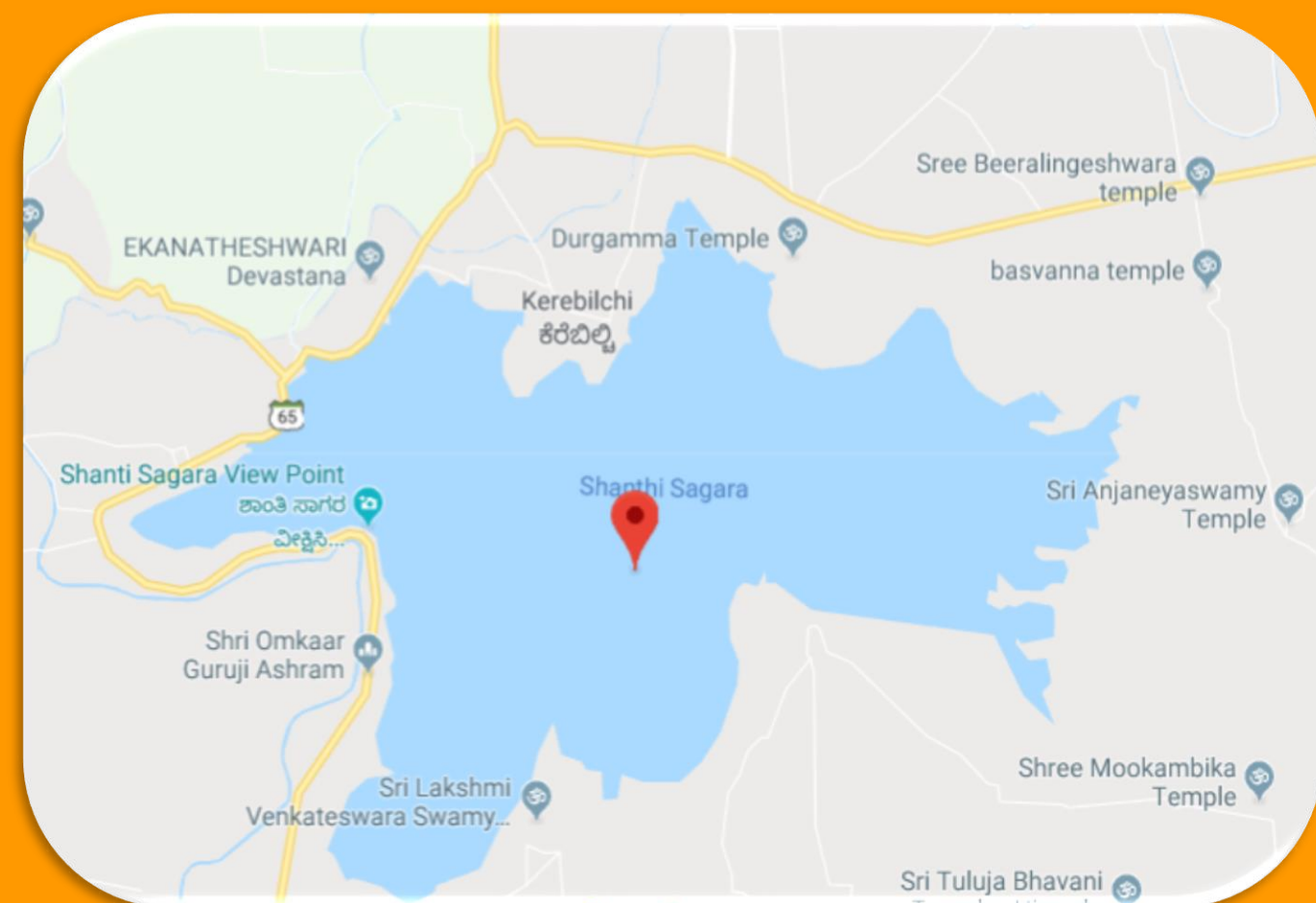
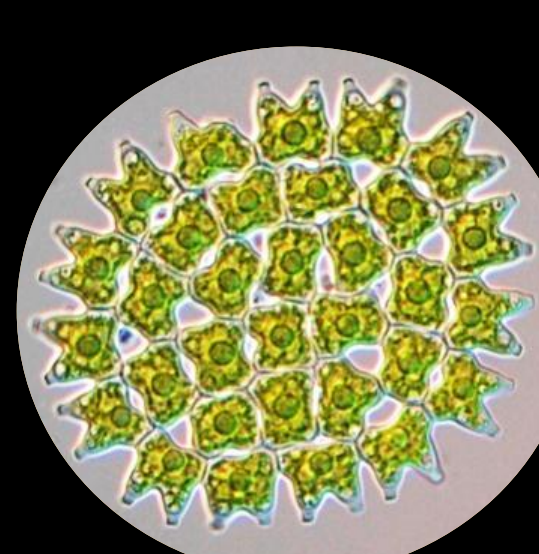
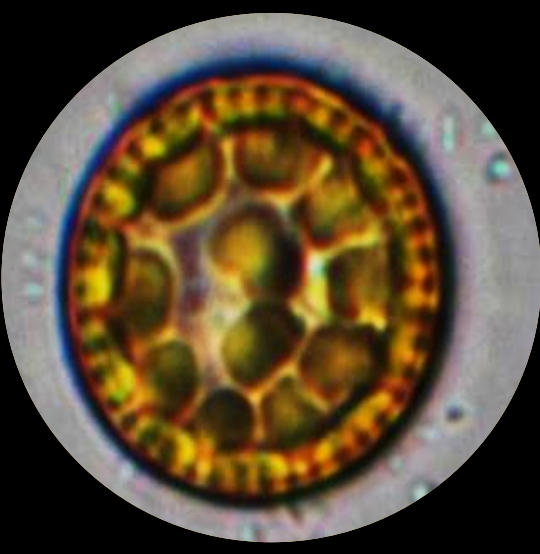
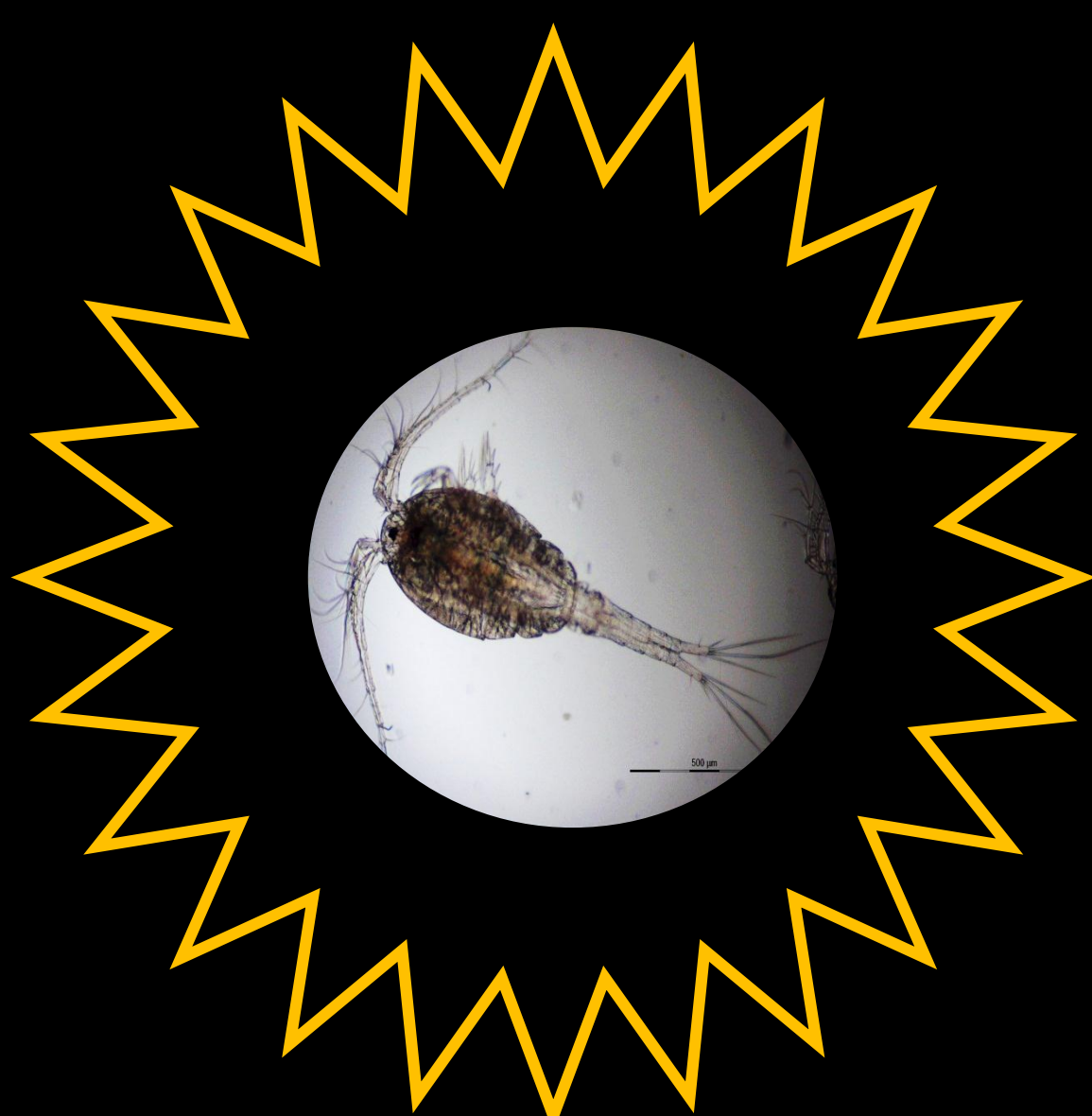
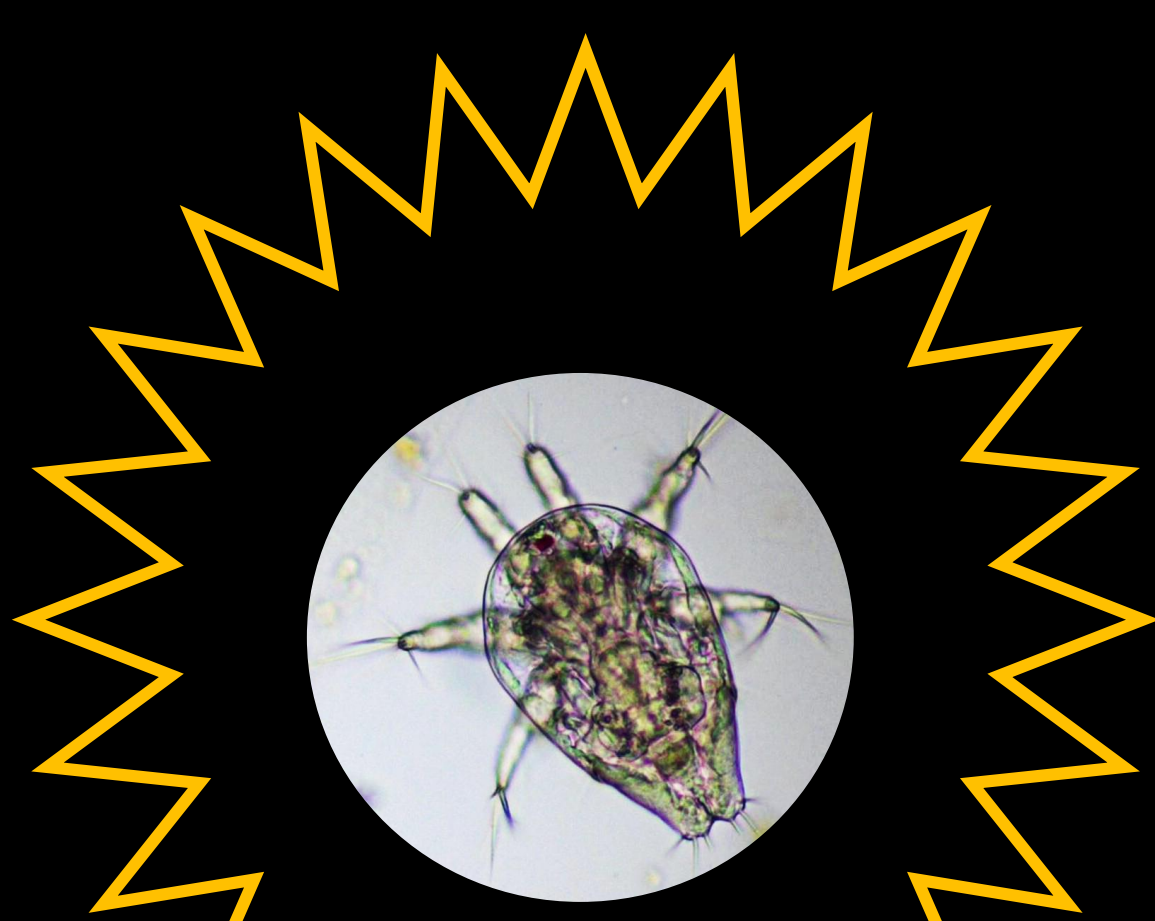
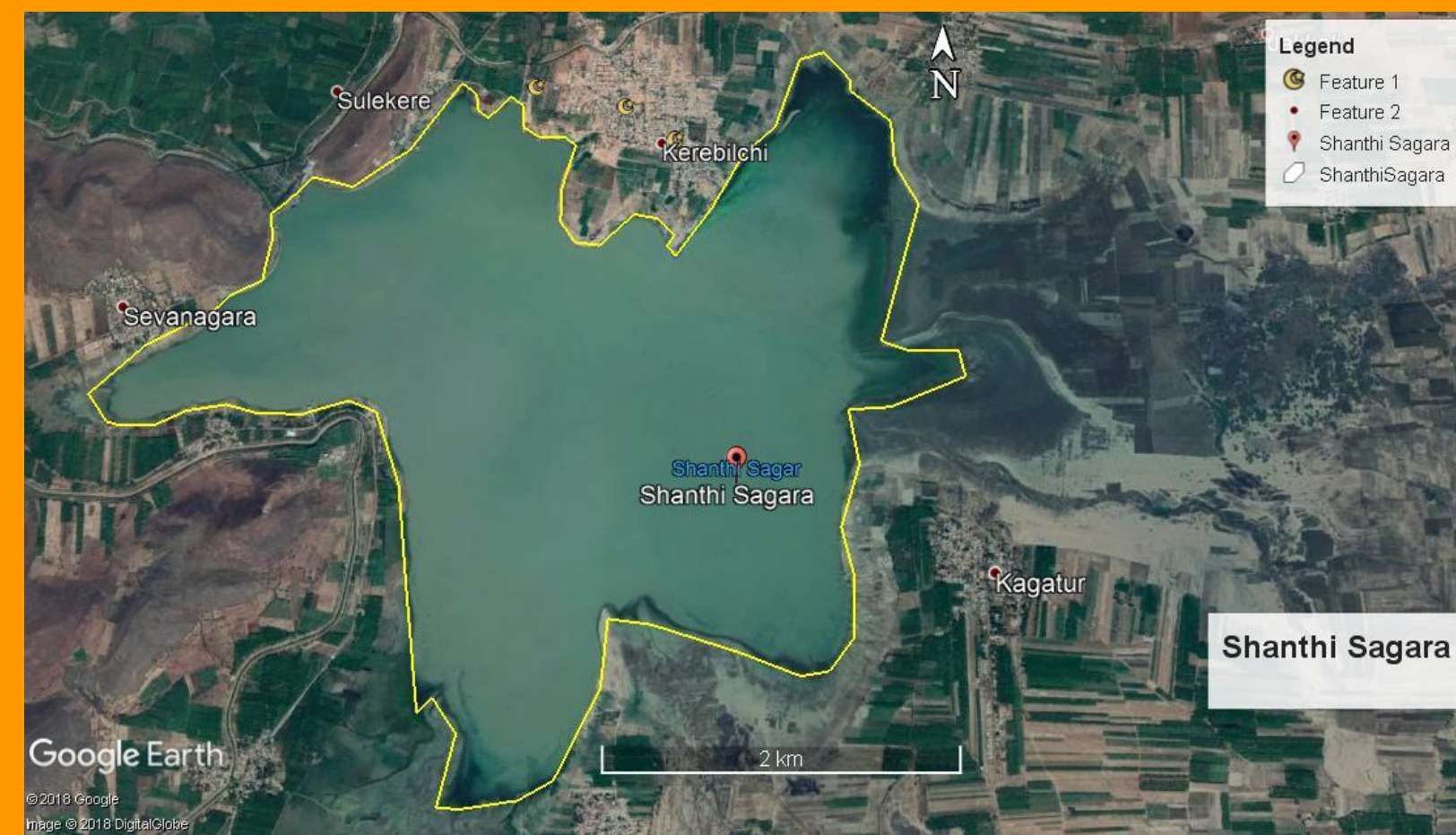


# ASIA'S SECOND LARGEST LAKE SHANTHI SAGARA @ CHANNAGIRI, DAVANAGERE

Energy and Wetlands Research Group, Centre for Ecological Sciences, Indian Institute of Science, Bangalore 560012.  
URL: [ces.iisc.ernet.in/energy](http://ces.iisc.ernet.in/energy), Phone: 080 22933099, email: [tvr@iisc.ac.in](mailto:tvr@iisc.ac.in)



## WATER QUALITY



Parameters	S1	S2	Water quality Standard IS 10500, 1991-2011	
			Desirable	Permissible
Water Temperature (°C)	24.8	24.8	-	-
TDS (mg/l)	215	117	500	2000
EC (µS)	357	185	-	-
pH	8.32	8.39	6.5-8.5	No relaxation
DO (mg/l)	5.48	6.18	-	-
COD (mg/l)	24	12	-	-
Alkalinity (mg/l)	228	124	200	600
Chloride (mg/l)	34.08	24.14	250	1000
Total Hardness (mg/l)	136	88	300	600
Calcium (mg/l)	34.47	21.64	75	200
Magnesium (mg/l)	12.18	8.29	30	100
Orthophosphate (mg/l)	0.503	0.560	-	-
Nitrate (mg/l)	1.480	1.857	45	100
Sodium (mg/l)	70.5	18.2	-	-
Potassium (mg/l)	5.6	5.8	-	-

❖ Water quality parameters are within the permissible limits.

**Conclusion:** ❖ Dominant Algae: Chlorophyceae and Bacillariophyceae

❖ Dominant Zooplankton: Copepoda and Cladocera

❖ Shanthi sagara/  
Sulekere

❖ Built in 1128

❖ 800 years old lake

❖ 6,550 acres water  
spread area

❖ Length is 8.1 km

❖ Width is 4.6 km

❖ Sustains water for  
Davanagere,  
Chitradurga



**Sincy V, Asulabha K S, Vinay S  
& Ramachandra T V**  
**EWRG, CES, IISc, Bengaluru**