
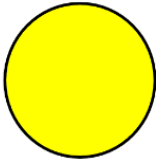
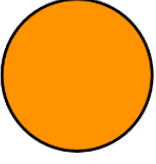
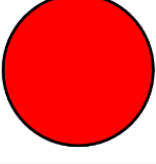


MV CYANO 2022 data for James Pond

Samples collected and analyzed by Great Pond Foundation using a bbe Moldaenke Fluoroprobe II.

For more information, please see www.greatpondfoundation.org/mvcyano

GREEN		<p style="text-align: center;">BLOOM NOT PRESENT</p> <p>Conditions are not favorable for a Cyanobacterial Bloom.</p> <p>OK: Swimming, boating, paddling, wading, fishing, and consuming shellfish, crabs, or finfish. No known cyanobacteria risks to humans, pets, and livestock.</p>
YELLOW		<p style="text-align: center;">CYANOBACTERIA ALERT</p> <p>It is the season where Cyanobacterial Blooms are possible.</p> <p>OK: Swimming, boating, paddling, wading, fishing, and consuming shellfish, crabs, or finfish.</p> <p>USE CAUTION: risk to humans/pets/ livestock when ingesting water.</p>
ORANGE		<p style="text-align: center;">CYANOBACTERIA BLOOM WATCH</p> <p>OK: Boating.</p> <p>USE CAUTION: risk for swimming, paddling, and wading, fishing.</p> <p>ADVISE AGAINST: humans/pets/livestock ingestion of water, consuming shellfish, crabs, or finfish.</p>
RED		<p style="text-align: center;">CYANOBACTERIA BLOOM ADVISORY</p> <p>There is an active Cyanobacteria bloom, cyanotoxins may be present.</p> <p>OK: Boating.</p> <p>ADVISE AGAINST: pets/livestock/human ingestion of water, fishing, consuming shellfish or finfish, swimming, paddling, and wading.</p>



MV CYANO data are generated from a bbe Moldaenke Fluoroprobe instrument. This instrument is a fluorometer, which measures the biomass (quantity) of microscopic plants by detecting the fluorescence produced in response to different wavelengths of light. The amount of fluorescence is directly related to the concentration of plant pigments in the sample. Different types of microscopic aquatic plants, called phytoplankton, utilize different pigments, which allows the fluorometer to differentiate and quantify different phytoplankton taxa. The Fluoroprobe measures the concentration of cyanobacteria in micrograms per liter ($\mu\text{g/L}$) and estimates the number of cells per milliliter (cells/mL). The MV CYANO color designations are based on the $\mu\text{g/L}$ measurement. The total amount of plant pigments in the water sample corresponds to the amount of chlorophyll, measured in $\mu\text{g/L}$. The concentration of chlorophyll is a measurement of the phytoplankton biomass in the sample. Salinity and water temperature, measured at the time of sample collection, are factors that can influence the growth rate of cyanobacteria and other types of phytoplankton. The MV CYANO color determination (see color-chart above) corresponds to the risk level determined by the local Board of Health agencies based on the concentration of cyanobacteria and other environmental factors.

Station	Pond	Date	Cyanobacteria ($\mu\text{g/L}$)	Cyanobacteria (cells/mL)	Chlorophyll ($\mu\text{g/L}$)	Temp ($^{\circ}\text{C}$)	Temp ($^{\circ}\text{F}$)	Salinity (ppt)	MV CYANO
JMS01	JMS	6/22/2022	1.16	1158.00	25.94	25.30	77.54	22.28	yellow
JMS02	JMS	6/22/2022	0.64	642.58	25.25	25.30	77.54	22.28	yellow
JMS algae	JMS	6/22/2022	4.80	4801.00	28.00	25.30	77.54	22.28	yellow
JMS01	JMS	7/5/2022	12.35	12349.50	53.46	23.89	75.00	19.62	orange
JMS02	JMS	7/5/2022	14.52	14514.80	62.57	23.89	75.00	19.62	orange



Station	Pond	Date	Cyanobacteria (µg/L)	Cyanobacteria (cells/mL)	Chlorophyll (µg/L)	Temp (°C)	Temp (°F)	Salinity (ppt)	MV CYANO
JMS01	JMS	7/18/2022	3.90	3894.60	21.86			22.88	yellow
JMS02	JMS	7/18/2022	22.09	22089.10	171.55			22.17	orange
JMS01	JMS	7/20/2022	3.48	3480.90	13.17			24.17	orange
JMS02	JMS	7/20/2022	3.09	3090.20	12.61			24.17	orange
JMS01	JMS	7/27/2022	1.67	1670.92	12.54			25.15	orange
JMS01	JMS	7/27/2022	0.21	210.40	29.95			25.15	orange
JMS01	JMS	8/2/2022	1.76	1765.50	9.28			23.45	yellow
JMS02	JMS	8/2/2022	1.51	1512.60	12.87			23.45	yellow
JMS01	JMS	8/8/2022	0.83	829.50	13.07			22.25	yellow
JMS02	JMS	8/8/2022	0.91	909.20	12.46			22.25	yellow
JMS01	JMS	8/15/2022	0.00	0.00	14.16			24.06	green
JMS02	JMS	8/15/2022	0.00	0.00	9.52			24.06	green
JMS01	JMS	8/22/2022	0.002	2.6	11.345				green
JMS02	JMS	8/22/2022	0.051	50.5	11.867				green
JMS01	JMS	8/29/2022	0.094	94.5	7.51			21.68	green
JMS02	JMS	8/29/2022	0	0	15.257			21.68	green

