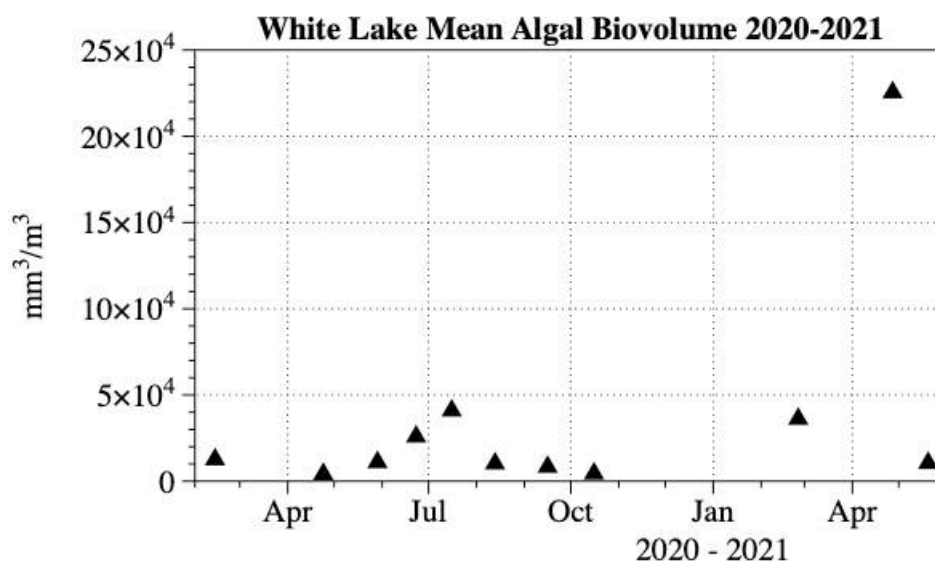


White Lake Algae Data Through May 2021



The 2021 *Cosmarium tinctum* bloom peaked in April; it constituted 94% of total algal biovolume (the mean BV of *C. tinctum* was 212,650 mm³/m³) at that time. In May, the mean biovolume of this species had dropped to 92.8 mm³/m³.

The mean total algal biovolume in May 2021 was 10,534 mm³/m³ (with diatoms dominating the biovolume), which was very close to the May 2020 mean total algal biovolume (10,248 mm³/m³, with chrysophytes dominating the biovolume).

The mean total cyanobacterial biovolume in May 2021 was 123 mm³/m³, which was 1.2% of total algal biovolume. The tiny cyanobacteria *Synechococcus* sp. and *Aphanocapsa* sp. were numerically (number of cells/mL) dominant.

A Comparison of White Lake Data for May, From 2013-2021

	5/21/2013	5/17/2017	5/2/2018	5/23/2019	5/29/2020	5/20/21
Mean Temperature (C)	25	25	23	27	25.5	23.5
Water Clarity, Measured as Secchi Depth (m)	2.5	1.5	0.5	B	1.5	1.75
Turbidity (NTU)	1.3	2.3	4.9	-	1.6	1.5
Mean Algae Abundance, Measured as Chlorophyll a Concentration (µg/L)	2.5	9.5	52	2.9	17.3	3.8
pH Range (std. units)	5.6-5.9	5.9-6.4	9.1-9.6	6.2-6.6	6.7-6.8	6.5-6.6
Dissolved Oxygen Mean % Saturation	102	103	123	99	99	92
Mean Total Nitrogen (mg/L)	0.34	0.57	1.26	0.330	0.776	0.509
Mean Total Phosphorus (mg/L)	<0.02	0.02	0.06	0.014	0.019	0.024
Number of Samples	3	3	7	6	6	6

Monthly Rainfall (inches) for White Lake 2012-2021

Two rain events of 3"+ in Feb

Month	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	Monthly Average for Region
January	8.25	4.5	2.75	4.20	7.0	3.0	2.5	2.0	1.75	2.75	3.81
February	9.2	6.7	2.25	2.00	1.5	10.7	5.5	1.5	2.5	4.0	3.44
March	2.7	3.7	3.25	3.95	3.7	1.55	4.15	ND	1.0	7.0	3.91
April	1.75	5.1	7.25	6.75	6.75	6.75	4.55	ND	1.75	2.25	3.12
May	3.0	12.25	1.20	7.70	2.7	4.5	4.20	ND	2.25	9.25	3.67
June	7.9	7.15	5.25	10.00	4.5	3.65	8.70	3.0	17.0	2.0	4.70
July		6.85	6.00	4.75	6.75	3.75	3.0	4.65	11.25	8.6	5.75
August		7.55	5.35	6.25	5.6	4.12	9.4	9.75	8.25	9.75	5.95
September		5.95	5.00	29.45	5.2	15.0	4.7	7.0	1.0	5.0	5.29
October		3.35	3.60	2.25	2.95	14.25	9.75	1.7	1.75	2.25	3.38
November		7.5	4.90	4.25	1.0	0.50	7.25	4.15	0	2.25	3.16
December		4.25	6.00	7.5	5.45	5.1	6.5	3.7	5.75	4.25	3.14
Total		74.85	52.80	89.05	53.1	72.87	70.20		54.25	59.35	49.32
% of Lake Volume		97	69	116	69	95	91		70	77	64

Two Sides to the White Lake Clarity Issue



East side, Goldston's Motel pier, July 22, 2021



West side, at Nathan's Cove, July 22, 2021



Low water conditions at this location, February 11, 2020. Sediment stirred up by boating activity as well as filamentous algal mats and vegetation can collect in this area; the decomposing organic material is unsightly and smelly, and swimmers can wind up with skin rashes.