

Harmful Algae Report

All data between 6/30/2017 and 7/14/2017

University of Delaware Citizen Monitoring Program

Water Body <u>Tributary</u> Site	Date	Time	Sample Depth	Name	Comment if ID uncertain	Abundance	MC/L
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Atlantic Ocean

RWPM14: Tower Rd Ocean, Delaware Seashore State Park

7/13/2017	9:50	Surfc	"Gymnodinioid" sp. (S)	10-15 um Grn	Present	
			<i>Amphidinium</i> spp. (T)		Rare	
			<i>Ceratium</i> spp. (T)		Present	
			<i>Chaetoceros</i> spp. (T)		Common	0.200
			<i>Karlodinium veneficum</i> (T)		Rare	
			<i>Prorocentrum micans</i> (B)		Rare	
			<i>Prorocentrum minimum</i> (T)		Rare	
			<i>Prorocentrum triestinum</i> (B)		Rare	
			<i>Pseudo-nitzschia</i> spp. (T)		Present	0.014

Broadkill River

Broadkill River

BR01: Broadkill river @ PEL dock.

7/12/2017	8:50	Net	<i>Karlodinium veneficum</i> (T)			
			<i>Prorocentrum minimum</i> (T)			
		Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
			<i>Prorocentrum scutellum</i> (B)		Present	
			<i>Prorocentrum triestinum</i> (B)		Present	

BR20: Broadkill River at Milton tidal pond

7/12/2017	6:35	Surfc	<i>Anabaena</i> spp. (T)		Many	1.625
			<i>Ceratium</i> spp. (T)		Present	
			<i>Kryptoperidinium foliaceum</i> (B)		Present	
			<i>Microcystis</i> spp. (T)		Many	2.500

Diamond Pond

BR48: Diamond Pond at Spillway

7/12/2017	8:45	Surfc	<i>Anabaena</i> spp. (T)		Abundant	26.000
			<i>Ceratium</i> spp. (T)		Present	
			<i>Microcystis</i> spp. (T)		Abundant	46.600

Old Mill Creek

BR21: Old Mill Creek downstream from Red Mill Pond

7/12/2017	9:22	Surfc	<i>Kryptoperidinium foliaceum</i> (B)		Common	0.100
			<i>Microcystis</i> spp. (T)		Many	8.750
			<i>Protoperidinium quinquecorne</i> (B)		Present	

Red Mill Pond

BR54: Red Mill Pond outlet at Rt 1

7/12/2017	10:40	Surfc	<i>Anabaena</i> spp. (T)		Many	1.250
			<i>Aphanizomenon</i> spp. (T)		Many	6.250
			<i>Microcystis</i> spp. (T)		Abundant	20.000

Wagamon's Pond

BR44: Wagamon's Pond on Northern Shoreline, Milton

7/12/2017	14:00	Surfc	<i>Oscillatoria</i> spp. (B)		Many	2.000
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Delaware Bay

Canary Creek

BR19: Canary Creek at New Road

Name subsripts: (B) - nontoxic bloom former; (B*) - nontoxic bloom former reported only at levels > 10 MC/L; (S) - cell similar to a known toxic cell; (T) - potentially toxic cell. MC/L - Million Cells per Liter.

Abundance Levels: Not Found: Looked for, but no cells found; Very Rare: < 0.001 MC/L; Rare 0.001 - 0.01 MC/L; Present: 0.01 - 0.1 MC/L; Common: 0.1 - 1 MC/L; Many: 1 - 10 MC/L; Abundant: 10 - 100 MC/L; Very Abundant: > 100 MC/L.

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Delaware Bay							
<u>Canary Creek</u>							
BR19: Canary Creek at New Road							
	7/11/2017	9:20	Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.450
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Common	0.125
				<i>Oscillatoria spp. (B)</i>		Common	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
BR40: Canary Creek at Pilottown Rd							
	7/11/2017	6:44	Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.100
				<i>Heterocapsa rotundata (B)</i>		Present	
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	6/30/2017	8:46	Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				"Gymnodinioid" sp. (S)	10-15 um Grn	Present	
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum micans (B)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Common	0.100
				<i>Prorocentrum triestinum (B)</i>		Present	
	7/11/2017			<i>Prorocentrum micans (B)</i>		Present	
Indian River							
<u>Indian River</u>							
IR02a: Rosedale crabbing pier							
	7/10/2017	10:15	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Common	0.100
				<i>Karlodinium veneficum (T)</i>		Common	0.150
IR11: Pot Nets Seaside Pier							
	7/10/2017	11:10	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
IR24: Iron Branch - County road 331 at bridge							
	7/11/2017	9:45	Surfc	<i>Akashiwo sanguinea (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Abundant	12.760
				<i>Karlodinium veneficum (T)</i>		Many	1.100
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	7/11/2017	7:45	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
<u>Pepper Creek</u>							
IR51: Pepper Creek, Creekside							
	7/11/2017	8:15	Surfc	<i>Chloromorom toxicum (T)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Common	0.100
				<i>Karlodinium veneficum (T)</i>		Present	
<u>Vines Creek</u>							
IR38: Vines Lane							

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Indian River							
<u>Vines Creek</u>							
IR38: Vines Lane							
	7/11/2017	8:10	Surfc	<i>Chloromorum toxicum (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Common	0.163
				<i>Karlodinium veneficum (T)</i>		Present	
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	7/10/2017	9:12	Surfc	<i>Chloromorum toxicum (T)</i>		Common	0.738
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Common	0.363
				<i>Karlodinium veneficum (T)</i>		Common	0.188
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Peridinium sp. (B)</i>	25um flat green	Present	
Little Assawoman Bay							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	7/10/2017	7:15	Surfc	<i>Chloromorum toxicum (T)</i>		Common	0.150
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Common	0.100
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	7/10/2017	8:01	Surfc	<i>Chattonella subsalsa (T)</i>		Common	0.238
				<i>Chloromorum toxicum (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Many	8.360
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Many	1.100
				<i>Peridinium sp. (B)</i>	25um flat green	Common	0.125
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	7/11/2017	8:00	Surfc	<i>Chattonella subsalsa (T)</i>		Present	
				<i>Chloromorum toxicum (T)</i>		Abundant	17.400
				<i>Fibrocapsa japonica (T)</i>		Many	3.080
				<i>Karlodinium veneficum (T)</i>		Common	0.175
SB10W: Russell Canal west dead end							
	7/11/2017	8:05	Surfc	<i>Chloromorum toxicum (T)</i>		Many	2.200
				<i>Fibrocapsa japonica (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Many	1.760
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge							
	7/11/2017	10:25	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Proto-peridinium quinquecorne (B)</i>		Present	
Rehoboth Bay							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							

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Rehoboth Bay							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	7/10/2017	10:08	Surfc	"Gymnodinioid" sp. (S)	10-15 um Grn	Present	
				<i>Chattonella subsalsa</i> (T)		Common	0.713
				<i>Karlodinium veneficum</i> (T)		Present	
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							
	7/10/2017	7:17	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
				<i>Cryptomonad</i> (an Order) spp. (B*)		Abundant	13.200
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	7/10/2017	9:34	Surfc	<i>Chloromorom toxicum</i> (T)		Many	3.960
				<i>Cylindrotheca closterium</i> (B*)		Abundant	19.800
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Many	1.760
Rehoboth Beach							
<u>Lake Gerar</u>							
RL10: Lake Gerar bridge							
	7/10/2017	8:20	Surfc	<i>Anabaena</i> spp. (T)		Abundant	24.430
				<i>Aphanizomenon</i> spp. (T)		Abundant	69.980
				<i>Snowella</i> spp. (T)		Abundant	18.200
<u>Silver Lake</u>							
RL01: Silver Lake, Lake Drive Bridge							
	7/10/2017	8:46	Surfc	<i>Aphanizomenon</i> spp. (T)		Many	6.000

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