

# Harmful Algae Report

All data between 6/1/2018 and 6/21/2018

University of Delaware Citizen Monitoring Program

Water Body <u>Tributary</u> Site	Date	Time	Sample Depth	Name	Comment if ID uncertain	Abundance	MC/L
<b>Broadkill River</b>							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	6/6/2018	8:45	Net	<i>Amphidinium spp. (T)</i>			
				<i>Heterocapsa lanceolata (B)</i>			
			Surfc	<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
	6/13/2018	8:50	Net	<i>Chaetoceros spp. (T)</i>			
				<i>Dinophysis acuminata (T)</i>			
				<i>Heterosigma akashiwo (T)</i>			
				<i>Karlodinium veneficum (T)</i>			
				<i>Prorocentrum triestinum (B)</i>			
			Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.175
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
	6/20/2018	9:00	Net	<i>Gyrodinium instriatum (B)</i>			
				<i>Heterocapsa rotundata (B)</i>			
				<i>Heterosigma akashiwo (T)</i>			
				<i>Karlodinium veneficum (T)</i>			
			Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
BR20: Broadkill River at Milton tidal pond							
	6/13/2018	11:32	Surfc		No HABs found		
<u>Canary Creek</u>							
BR19: Canary Creek at New Road							
	6/13/2018	12:21	Surfc	<i>Microcystis spp. (T)</i>		Common	
BR40: Canary Creek at Pilottown Rd							
	6/6/2018	8:00	Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.150
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Microcystis spp. (T)</i>		Common	0.625
<u>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	6/13/2018	7:45	Surfc		No HABs found		
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	6/13/2018	10:42	Surfc	<i>Microcystis spp. (T)</i>		Abundant	14.400
<u>Red Mill Pond</u>							
BR54: Red Mill Pond outlet at Rt 1							
	6/13/2018	12:06	Surfc	<i>Anabaena spp. (T)</i>		Many	1.250
				<i>Microcystis spp. (T)</i>		Very Abundant	121.000

## Delaware Bay

### Delaware Bay

DB01: End of Cape Shores pier

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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<b>Delaware Bay</b>							
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	6/5/2018	8:42	Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.100
				<i>Fibrocapsa japonica (T)</i>		Present	
				<i>Heterocapsa lanceolata (B)</i>		Common	0.200
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
	6/13/2018	8:33		<i>Chaetoceros spp. (T)</i>		Common	0.500
				<i>Fibrocapsa japonica (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
	6/19/2018	8:52		<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum micans (B)</i>		Present	
<b>Indian River</b>							
<u>Indian River</u>							
IR02a: Rosedale crabbing pier							
	6/11/2018	9:45	Surfc	<i>Fibrocapsa japonica (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Common	0.100
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
IR11: Pot Nets Seaside Pier							
	6/11/2018	10:25	Surfc	<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
IR24: Iron Branch - County road 331 at bridge							
	6/11/2018	9:22	Surfc		No HABS found		
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	6/12/2018	7:45	Surfc		No HABS found		
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	6/13/2018	8:54	Surfc	<i>Alexandrium sp. (T)</i>		Rare	0.001
				<i>Amphidinium spp. (T)</i>		Rare	0.002
				<i>Dinophysis acuminata (T)</i>		Rare	0.008
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Rare	0.001
				<i>Prorocentrum scutellum (B)</i>		Rare	0.002
				<i>Prorocentrum triestinum (B)</i>		Present	

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<b>Indian River</b>							
<u>Indian River</u>							
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	6/13/2018	8:54	Surfc	<i>Protoperidinium quinquecorne</i> (B)		Present	
				<i>Pseudo-nitzschia</i> spp. (T)		Present	0.012
				<i>Scrippsiella</i> sp. (B)		Rare	0.001
<u>Pepper Creek</u>							
IR51: Pepper Creek, Creekside							
	6/12/2018	10:48	Surfc		No HABs found		
<u>Vines Creek</u>							
IR38: Vines Lane							
	6/12/2018	10:30	Surfc	<i>Heterosigma akashiwo</i> (T)		Present	
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	6/4/2018	8:22	Surfc	<i>Gyrodinium instriatum</i> (B)		Common	0.200
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
	6/11/2018	8:45		<i>Chloromorom toxicum</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Many	9.900
				<i>Heterosigma akashiwo</i> (T)		Common	0.325
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.150
				<i>Protoperidinium quinquecorne</i> (B)		Present	
	6/18/2018	8:24		<i>Alexandrium</i> sp. (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Many	2.200
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	
<b>Little Assawoman Bay</b>							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	6/13/2018	7:16	Surfc	<i>Gyrodinium instriatum</i> (B)		Common	0.375
LA09: Dirickson Creek at Road 381 bridge.							
	6/13/2018	6:14	Surfc	<i>Anabaena</i> spp. (T)		Common	0.313
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.338
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	6/5/2018	7:59	Surfc	<i>Pleurochrysis carterae</i> (B*)		Abundant	11.000
	6/12/2018	8:00		<i>Chloromorom toxicum</i> (T)		Common	0.475
				<i>Gyrodinium instriatum</i> (B)		Common	0.138
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
	6/19/2018	7:31		<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	

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<b>Little Assawoman Bay</b>							
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end	6/19/2018	7:31	Surfc	<i>Scrippsiella sp. (B)</i>		Present	
SB10W: Russell Canal west dead end	6/5/2018	8:17	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
	6/12/2018	8:13		<i>Cochlodinium sp. (T)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
	6/19/2018	7:47		<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge	6/12/2018	7:50	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Common	0.138
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.113
<b>Rehoboth Bay</b>							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1	6/4/2018	8:55	Surfc		No HABs found		
	6/13/2018	9:23		<i>Chattonella subsalsa (T)</i>		Common	0.113
				<i>Cochlodinium sp. (T)</i>		Present	
				<i>Gymnodinium aureolum (B)</i>		Present	
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Common	0.175
	6/18/2018	8:58		<i>Chattonella subsalsa (T)</i>		Many	2.420
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge	6/11/2018	10:58	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	

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