

# Harmful Algae Report

All data between 6/22/2019 and 7/5/2019

University of Delaware Citizen Monitoring Program

Water Body Tributary 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.							
	6/27/2019	9:00	Net	<i>Chaetoceros spp. (T)</i>			
			Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.275
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Present	
	7/3/2019	8:55	Net	<i>Dinophysis acuminata (T)</i>			
				<i>Heterocapsa lanceolata (B)</i>			
				<i>Heterosigma akashiwo (T)</i>			
				<i>Karlodinium veneficum (T)</i>			
				<i>Prorocentrum micans (B)</i>			
				<i>Prorocentrum minimum (T)</i>			
			Surfc	<i>Chaetoceros spp. (T)</i>		Present	
				<i>Dinophysis acuminata (T)</i>		Present	
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum minimum (T)</i>		Present	
BR20: Broadkill River at Milton tidal pond							
	6/26/2019	6:32	Surfc		No HABs found		
<u>Canary Creek</u>							
BR19: Canary Creek at New Road							
	6/26/2019	11:51	Surfc	<i>Heterosigma akashiwo (T)</i>		Many	3.000
				<i>Kryptoperidinium foliaceum (B)</i>		Common	0.188
				<i>Protoperidinium quinquecorne (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
				<i>Viridilobus marinus (B)</i>		Abundant	66.000
BR40: Canary Creek at Pilottown Rd							
	6/26/2019	7:19	Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.138
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
<u>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	6/26/2019	11:12	Surfc	<i>Microcystis spp. (T)</i>		Common	0.625
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	6/26/2019	9:55	Surfc	<i>Aphanizomenon spp. (T)</i>		Many	1.500
				<i>Microcystis spp. (T)</i>		Abundant	12.200
<u>Red Mill Pond</u>							
BR54: Red Mill Pond outlet at Rt 1							
	6/26/2019	11:40	Surfc	<i>Microcystis v small spp (T)</i>		Abundant	30.700
<b>Delaware Bay</b>							
<u>Delaware Bay</u>							

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<b>Delaware Bay</b>							
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DB01: End of Cape Shores pier	6/26/2019	8:56	Surfc	<i>Chaetoceros spp. (T)</i>		Common	0.325
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.100
	7/3/2019	8:46		"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				<i>Chaetoceros spp. (T)</i>		Common	0.275
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
DB20: 1.5 miles off of Bowers Beach	6/26/2019	14:00	Surfc	<i>Amphidinium spp. (T)</i>		Present	
				<i>Chaetoceros spp. (T)</i>		Common	0.150
				<i>Heterocapsa lanceolata (B)</i>		Many	1.870
				<i>Heterocapsa rotundata (B)</i>		Common	0.313
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.463
				<i>Prorocentrum minimum (T)</i>		Present	
<b>Indian River</b>							
<u>Indian River</u>							
IR02a: Rosedale crabbing pier	6/24/2019	9:18	Surfc	<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Many	8.140
				<i>Prorocentrum minimum (T)</i>		Present	
IR11: Pot Nets Seaside Pier	6/24/2019	10:08	Surfc	<i>Chaetoceros spp. (T)</i>		Present	
				<i>Chloromorun toxicum (T)</i>		Present	
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
IR24: Iron Branch - County road 331 at bridge	6/24/2019	8:50	Surfc	<i>Viridilobus marinus (B)</i>		Common	0.100
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore	6/25/2019	7:50	Surfc	<i>Chloromorun toxicum (T)</i>		Present	
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Prorocentrum sp. (T)</i>		Present	
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.	7/1/2019	8:45	Surfc	<i>Ceratium pentagonum (B)</i>		Rare	0.001
				<i>Dinophysis acuminata (T)</i>		Rare	0.001
				<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 minimum (T)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Rare	0.001

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<b>Indian River</b>							
<u>Pepper Creek</u>							
IR51: Pepper Creek, Creekside							
	6/25/2019	9:50	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Many	2.420
				<i>Karlodinium veneficum</i> (T)		Common	0.200
				<i>Prorocentrum minimum</i> (T)		Present	
<u>Vines Creek</u>							
IR38: Vines Lane							
	6/25/2019	6:45	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Common	0.788
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum minimum</i> (T)		Present	
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	6/24/2019	8:38	Surfc	<i>Akashiwo sanguinea</i> (T)		Present	
				<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Common	0.338
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Common	0.100
				<i>Karlodinium veneficum</i> (T)		Common	0.138
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Peridinium sp.</i> (B)	25um flat green	Present	
				<i>Prorocentrum minimum</i> (T)		Common	0.338
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Common	0.125
				<i>Scrippsiella sp.</i> (B)		Present	
	7/1/2019	8:36		<i>Chattonella subsalsa</i> (T)		Present	
				<i>Chloromorom toxicum</i> (T)		Present	
				<i>Heterocapsa lanceolata</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.150
				<i>Karlodinium veneficum</i> (T)		Common	0.113
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.325
				<i>Prorocentrum minimum</i> (T)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Common	0.150
<b>Little Assawoman Bay</b>							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	6/25/2019	6:45	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.100
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Common	0.113
LA09: Dirickson Creek at Road 381 bridge.							
	6/25/2019	7:30	Surfc	<i>Gyrodinium instriatum</i> (B)		Many	2.860
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
				<i>Viridilobus marinus</i> (B)		Present	

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<b>Little Assawoman Bay</b>							
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	6/25/2019	7:20	Surfc	<i>"Gymnodinioid" sp. (S)</i>	25-40 um Grn	Present	
				<i>Chattonella subsalsa (T)</i>		Common	0.100
				<i>Chloromorun toxicum (T)</i>		Common	0.113
				<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.125
	7/2/2019	7:14		<i>Chloromorun toxicum (T)</i>		Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
SB10W: Russell Canal west dead end							
	6/25/2019	7:15	Surfc	<i>Chloromorun toxicum (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.138
	7/2/2019	7:36		<i>Chloromorun toxicum (T)</i>		Common	0.188
				<i>Fibrocapsa japonica (T)</i>		Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge							
	6/25/2019	8:30	Surfc	<i>Alexandrium sp. (T)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.138
<b>Rehoboth Bay</b>							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	6/24/2019	9:35	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterocapsa lanceolata (B)</i>		Present	
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
	7/1/2019	9:16		<i>Chloromorun toxicum (T)</i>		Common	0.263
				<i>Heterocapsa rotundata (B)</i>		Present	
				<i>Karlodinium veneficum (T)</i>		Common	0.150
				<i>Prorocentrum minimum (T)</i>		Present	
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							
	6/24/2019	7:48	Surfc	<i>Gyrodinium instriatum (B)</i>		Present	
				<i>Heterosigma akashiwo (T)</i>		Common	0.150
				<i>Karlodinium veneficum (T)</i>		Present	
				<i>Kryptoperidinium foliaceum (B)</i>		Present	
				<i>Prorocentrum triestinum (B)</i>		Present	
				<i>Protoperidinium quinquecorne (B)</i>		Present	
				<i>Scrippsiella sp. (B)</i>		Present	
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	6/25/2019	10:45	Surfc	<i>Chloromorun toxicum (T)</i>		Many	1.760
				<i>Gyrodinium instriatum (B)</i>		Many	1.320
				<i>Heterosigma akashiwo (T)</i>		Abundant	11.000
				<i>Karlodinium veneficum (T)</i>		Present	

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<u>Tributary</u>			<b>Depth</b>		<b>ID uncertain</b>		
<u>Site</u>							
<b>Rehoboth Bay</b>							
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	6/25/2019	10:45	Surfc	<i>Kryptoperidinium foliaceum (B)</i>		Common	0.880
				<i>Viridilobus marinus (B)</i>		Very Abundant	132.000
<b>Rehoboth Beach</b>							
<u>Silver Lake</u>							
RL04: Silver Lake, outlet to ocean							
	6/26/2019	10:30	Surfc	<i>Aphanizomenon spp. (T)</i>		Many	2.500

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