

# Harmful Algae Report

All data between 8/2/2016 and 8/18/2016

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>Atlantic Ocean</b>							
RWPM: Dagsworthy, Dewey Beach							
	8/10/2016	12:15	Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Very Rare	
				<i>Amphidinium</i> spp. (T)		Very Rare	
				<i>Chaetoceros</i> spp. (T)		Present	0.012
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Prorocentrum triestinum</i> (B)		Common	0.138
				<i>Pseudo-nitzschia</i> spp. (T)		Present	0.027
				<i>Rhizosolenia</i> spp. (T)		Rare	0.001
RWPMVIII: Town of Fenwick							
	8/10/2016	11:20	Surfc	<i>Amphidinium</i> spp. (T)		Very Rare	
				<i>Karenia papilionacea</i> (T)		Rare	0.002
				<i>Pseudo-nitzschia</i> spp. (T)		Present	0.010
				<i>Rhizosolenia</i> spp. (T)		Rare	0.001
				<i>Scrippsiella</i> sp. (B)		Present	
<b>Broadkill River</b>							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	8/3/2016	8:45	Net	<i>Chaetoceros</i> spp. (T)			
				<i>Fibrocapsa japonica</i> (T)			
				<i>Heterocapsa rotundata</i> (B)			
				<i>Heterocapsa triquetra</i> (B)			
				<i>Heterosigma akashiwo</i> (T)			
				<i>Karenia papilionacea</i> (T)			
				<i>Prorocentrum triestinum</i> (B)			
			Surfc	<i>Amphidinium</i> spp. (T)		Very Rare	
				<i>Chaetoceros</i> spp. (T)		Common	0.100
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karenia papilionacea</i> (T)		Rare	0.002
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum scutellum</i> (B)		Very Rare	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Very Rare	
	8/10/2016		Net	<i>Chaetoceros</i> spp. (T)			
			Surfc	<i>Chaetoceros</i> spp. (T)		Common	0.700
	8/17/2016		Net	"Gymnodinioid" sp. (S)	25-40 um Grn		
				<i>Heterocapsa rotundata</i> (B)			
				<i>Heterosigma akashiwo</i> (T)			
				<i>Karenia papilionacea</i> (T)			
				<i>Karlodinium veneficum</i> (T)			
				<i>Pseudo-nitzschia</i> spp. (T)			
				<i>Rhizosolenia</i> spp. (T)			
			Surfc	<i>Heterocapsa rotundata</i> (B)		Common	0.113
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karenia papilionacea</i> (T)		Rare	0.001

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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>Broadkill River</b>							
<u>Broadkill River</u>							
BR01: Broadkill river @ PEL dock.							
	8/17/2016	8:45	Surfc	<i>Protoperidinium quinquecorne</i> (B)		Present	
				<i>Pseudo-nitzschia</i> spp. (T)		Rare	0.004
				<i>Rhizosolenia</i> spp. (T)		Rare	0.002
BR20: Broadkill River at Milton tidal pond							
	8/10/2016	6:10	Surfc	<i>Aphanizomenon</i> spp. (T)		Many	
				<i>Microcystis</i> spp. (T)		Common	
<u>Diamond Pond</u>							
BR48: Diamond Pond at Spillway							
	8/10/2016	6:55	Surfc	<i>Aphanizomenon</i> spp. (T)		Many	3.750
				<i>Microcystis</i> spp. (T)		Many	5.000
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	8/10/2016	11:35	Surfc	(Unknown) (B*)	<10 um oval grn flag	Abundant	39.600
				<i>Aphanizomenon</i> spp. (T)		Many	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Microcystis</i> spp. (T)		Many	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
				<i>Scrippsiella</i> sp. (B)		Present	
				<i>Viridilobus marinus</i> (B)		Abundant	28.600
<u>Red Mill Pond</u>							
BR54: Red Mill Pond outlet at Rt 1							
	8/10/2016	11:45	Surfc	(Unknown) (B*)	Thin cyano straight	Very Abundant	136.400
				(Unknown) (B*)	Thin cyano coiled	Abundant	35.200
				<i>Aphanizomenon</i> spp. (T)		Abundant	92.400
				<i>Cylindrospermopsis</i> (T)		Many	
				<i>Microcystis</i> spp. (T)		Abundant	26.400
<b>Delaware Bay</b>							
<u>Canary Creek</u>							
BR40: Canary Creek at Pilottown Rd							
	8/9/2016	8:58	Surfc	<i>Chaetoceros</i> spp. (T)		Common	0.350
				<i>Heterocapsa rotundata</i> (B)		Present	
<u>Delaware Bay</u>							
DB01: End of Cape Shores pier							
	8/9/2016	8:51	Surfc	<i>Chaetoceros</i> spp. (T)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
	8/17/2016	8:34		<i>Heterocapsa rotundata</i> (B)		Common	0.100
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karenia papilionacea</i> (T)		Rare	0.002
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum scutellum</i> (B)		Very Rare	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Rhizosolenia</i> spp. (T)		Present	
<b>Indian River</b>							
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<b>Indian River</b>							
<u>Indian River</u>							
IR11: Pot Nets Seaside Pier							
	8/9/2016	10:30	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
IR24: Iron Branch - County road 331 at bridge							
	8/9/2016	11:15	Surfc	<i>Gyrodinium instriatum</i> (B)		Common	0.100
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Navicula (small)</i> (B*)		Abundant	88.000
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	8/9/2016	7:45	Surfc	<i>Heterocapsa rotundata</i> (B)		Common	0.125
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	8/2/2016	9:00	Surfc	" <i>Gymnodinioid</i> " sp. (S)	25-40 um Grn	Present	
				<i>Amphidinium</i> spp. (T)		Rare	0.002
				<i>Dinophysis acuminata</i> (T)		Very Rare	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterocapsa triquetra</i> (B)		Very Rare	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karenia papilionacea</i> (T)		Present	0.014
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Pseudo-nitzschia</i> spp. (T)		Rare	0.003
				<i>Rhizosolenia</i> spp. (T)		Very Rare	
				<i>Scrippsiella</i> sp. (B)		Rare	0.001
	8/17/2016	8:27		" <i>Gymnodinioid</i> " sp. (S)	25-40 um Grn	Present	
				<i>Chaetoceros</i> spp. (T)		Rare	0.002
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterocapsa triquetra</i> (B)		Very Rare	
				<i>Karenia papilionacea</i> (T)		Rare	0.008
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
				<i>Pseudo-nitzschia</i> spp. (T)		Present	0.026
				<i>Rhizosolenia</i> spp. (T)		Rare	0.003
				<i>Scrippsiella</i> sp. (B)		Rare	0.001
<u>Vines Creek</u>							
IR38: Vines Lane							
	8/9/2016	8:30	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.700
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	8/9/2016	9:00	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Common	0.113
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Common	0.150
				<i>Prorocentrum triestinum</i> (B)		Present	
<b>Little Assawoman Bay</b>							
<u>Dirickson Creek</u>							

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<b>Little Assawoman Bay</b>							
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	8/9/2016	7:03	Surfc	"Gymnodinioid" sp. (S)	25-40 um Grn	Present	
				<i>Akashiwo sanguinea</i> (T)		Present	
				<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>Scripsiella</i> sp. (B)		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	8/9/2016	7:44	Surfc	"Gymnodinioid" sp. (S)	10-15 um Grn	Present	
				<i>Amphidinium</i> spp. (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Common	0.138
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	8/9/2016	8:03	Surfc	<i>Chloromorom toxicum</i> (T)		Abundant	11.000
				<i>Fibrocapsa japonica</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Many	3.300
SB10W: Russell Canal west dead end							
	8/9/2016	8:28	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
				<i>Gyrodinium instriatum</i> (B)		Present	
				<i>Heterocapsa rotundata</i> (B)		Present	
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Protoperidinium quinquecorne</i> (B)		Present	
<u>Little Assawoman Bay</u>							
LA46: Fenwick Island Tide Gauge							
	8/9/2016	9:40	Surfc		No HABs found		
<b>Rehoboth Bay</b>							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	8/9/2016	11:45	Surfc	<i>Chattonella subsalsa</i> (T)		Common	0.338
				<i>Chloromorom toxicum</i> (T)		Common	0.638
				<i>Fibrocapsa japonica</i> (T)		Common	0.250
				<i>Heterosigma akashiwo</i> (T)		Present	
				<i>Karlodinium veneficum</i> (T)		Present	
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
				<i>Prorocentrum triestinum</i> (B)		Present	
<u>Guinea Creek</u>							
RB06: Guinea Creek (Winding Creek Village)							
	8/9/2016	7:30	Surfc	<i>Karlodinium veneficum</i> (T)		Common	0.125
				<i>Kryptoperidinium foliaceum</i> (B)		Present	
<u>Love Creek</u>							

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

**Rehoboth Bay**

Love Creek

RB34: Love Creek at Rt 24 Bridge

8/9/2016	9:20	Surfc	<i>Chloromoroum toxicum (T)</i>		Common	0.400
			<i>Cylindrotheca closterium (B*)</i>		Abundant	13.200
			<i>Gyrodinium instriatum (B)</i>		Common	0.125
			<i>Kryptoperidinium foliaceum (B)</i>		Present	

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