

Harmful Algae Report

All data between 7/15/2014 and 7/31/2014

University of Delaware Citizen Monitoring Program

Water Body Tributary Site	Date	Time	Smpl Name Dpth	Comment if ID uncertain	Abundance	MC/L
Atlantic Ocean						
RWPM14: Tower Rd Ocean, Delaware Seashore State Park						
	7/16/2014	8:58	Surfc	<i>Ceratium pentagonum (B)</i>	Rare	0.001
	7/16/2014	8:58	Surfc	<i>Heterocapsa rotundata (B)</i>	Rare	0.001
	7/16/2014	8:58	Surfc	<i>Karenia papilionacea (T)</i>	Present	0.072
	7/16/2014	8:58	Surfc	<i>Karodinium veneficum (T)</i>	Rare	0.001
	7/16/2014	8:58	Surfc	<i>Prorocentrum scutellum (B)</i>	Present	0.010
	7/16/2014	8:58	Surfc	<i>Prorocentrum triestinum (B)</i>	Present	0.011
	7/16/2014	8:58	Surfc	<i>Scrippsiella sp. (B)</i>	Rare	0.003
	7/30/2014	8:30	Surfc	<i>Karenia papilionacea (T)</i>	Very Rare	
	7/30/2014	8:30	Surfc	<i>Prorocentrum scutellum (B)</i>	Very Rare	
	7/30/2014	8:30	Surfc	<i>Prorocentrum triestinum (B)</i>	Present	0.016
	7/30/2014	8:30	Surfc	<i>Pseudo-nitzschia spp. (T)</i>	Present	0.012
	7/30/2014	8:30	Surfc	<i>Rhizosolenia spp. (T)</i>	Very Rare	
	7/30/2014	8:30	Surfc	<i>Scrippsiella sp. (B)</i>	Very Rare	
RWPM9: Gordon's Pond (1)						
	7/24/2014	8:30	Surfc	<i>Dinophysis acuminata (T)</i>	Very Rare	
	7/24/2014	8:30	Surfc	<i>Karenia papilionacea (T)</i>	Rare	0.008
	7/24/2014	8:30	Surfc	<i>Prorocentrum scutellum (B)</i>	Very Rare	
	7/24/2014	8:30	Surfc	<i>Prorocentrum triestinum (B)</i>	Rare	0.002
	7/24/2014	8:30	Surfc	<i>Pseudo-nitzschia spp. (T)</i>	Rare	0.003
	7/24/2014	8:30	Surfc	<i>Rhizosolenia spp. (T)</i>	Very Rare	
	7/24/2014	8:30	Surfc	<i>Scrippsiella sp. (B)</i>	Very Rare	
RWPMVIII: Town of Fenwick						
	7/16/2014	10:35	Surfc	<i>Chaetoceros spp. (T)</i>	Rare	0.008
	7/16/2014	10:35	Surfc	<i>Ditylum spp. (T)</i>	Very Rare	
	7/16/2014	10:35	Surfc	<i>Fibrocapsa japonica (T)</i>	Rare	0.001
	7/16/2014	10:35	Surfc	<i>Karenia papilionacea (T)</i>	Present	0.025
	7/16/2014	10:35	Surfc	<i>Prorocentrum triestinum (B)</i>	Rare	0.002
	7/16/2014	10:35	Surfc	<i>Rhizosolenia spp. (T)</i>	Very Rare	
	7/16/2014	10:35	Surfc	<i>Scrippsiella sp. (B)</i>	Very Rare	
	7/30/2014	8:15	Surfc	<i>Chaetoceros spp. (T)</i>	Rare	0.002
	7/30/2014	8:15	Surfc	<i>Ditylum spp. (T)</i>	Very Rare	
	7/30/2014	8:15	Surfc	<i>Karenia papilionacea (T)</i>	Rare	0.003
	7/30/2014	8:15	Surfc	<i>Prorocentrum scutellum (B)</i>	Rare	0.005
	7/30/2014	8:15	Surfc	<i>Prorocentrum sp. (T)</i>	Very Rare	
	7/30/2014	8:15	Surfc	<i>Prorocentrum triestinum (B)</i>	Rare	0.009
	7/30/2014	8:15	Surfc	<i>Rhizosolenia spp. (T)</i>	Rare	0.002
	7/30/2014	8:15	Surfc	<i>Scrippsiella sp. (B)</i>	Very Rare	

Name subscripts: (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.

University of Delaware Citizen Monitoring Program

Water Body Tributary Site	Date	Time	Smpl Dpth	Name	Comment if ID uncertain	Abundance	MC/L
Broadkill River							
BR01: Broadkill river @ PEL dock.							
	7/23/2014	9:06	Net	<i>Dinophysis acuminata</i> (T)			
	7/23/2014	9:06	Net	<i>Ditylum spp.</i> (T)			
	7/23/2014	9:06	Net	<i>Heterocapsa rotundata</i> (B)			
	7/23/2014	9:06	Net	<i>Kryptoperidinium foliaceum</i> (B)			
	7/23/2014	9:06	Net	<i>Prorocentrum scutellum</i> (B)			
	7/23/2014	9:06	Surfc	<i>Chaetoceros spp.</i> (T)		Present	
	7/23/2014	9:06	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/23/2014	9:06	Surfc	<i>Heterosigma akashiwo</i> (T)		Present	
	7/23/2014	9:06	Surfc	<i>Karlodinium veneficum</i> (T)		Present	
	7/23/2014	9:06	Surfc	<i>Kryptoperidinium foliaceum</i> (B)		Present	
	7/23/2014	9:06	Surfc	<i>Prorocentrum minimum</i> (T)		Present	
	7/30/2014	8:50	Net	<i>Chaetoceros spp.</i> (T)			
	7/30/2014	8:50	Net	<i>Chattonella subsalsa</i> (T)			
	7/30/2014	8:50	Net	<i>Gyrodinium instriatum</i> (B)			
	7/30/2014	8:50	Net	<i>Heterocapsa rotundata</i> (B)			
	7/30/2014	8:50	Net	<i>Karlodinium veneficum</i> (T)			
	7/30/2014	8:50	Net	<i>Prorocentrum scutellum</i> (B)			
	7/30/2014	8:50	Net	<i>Prorocentrum triestinum</i> (B)			
	7/30/2014	8:50	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
	7/30/2014	8:50	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/30/2014	8:50	Surfc	<i>Karlodinium veneficum</i> (T)		Present	
	7/30/2014	8:50	Surfc	<i>Prorocentrum minimum</i> (T)		Present	
	7/30/2014	8:50	Surfc	<i>Prorocentrum scutellum</i> (B)		Present	
	7/30/2014	8:50	Surfc	<i>Prorocentrum triestinum</i> (B)		Present	
BR20: Broadkill River at Milton tidal pond							
	7/23/2014	6:45	Surfc		No HABs found		
<u>Old Mill Creek</u>							
BR21: Old Mill Creek downstream from Red Mill Pond							
	7/23/2014	11:56	Surfc	<i>Aphanizomenon spp.</i> (T)		Common	0.880
	7/23/2014	11:56	Surfc	<i>Heterosigma akashiwo</i> (T)		Many	5.720
	7/23/2014	11:56	Surfc	<i>Microcystis spp.</i> (T)		Common	0.500
<u>Prime Hook Creek</u>							
BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters							
	7/23/2014	11:33	Surfc	<i>Amphidinium spp.</i> (T)		Present	
	7/23/2014	11:33	Surfc	<i>Anabaena spp.</i> (T)		Many	1.630
	7/23/2014	11:33	Surfc	<i>Chaetoceros spp.</i> (T)		Present	
	7/23/2014	11:33	Surfc	<i>Chattonella subsalsa</i> (T)		Many	4.840
	7/23/2014	11:33	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.650
	7/23/2014	11:33	Surfc	<i>Gyrodinium instriatum</i> (B)		Common	0.290
	7/23/2014	11:33	Surfc	<i>Heterocapsa rotundata</i> (B)		Common	0.160
	7/23/2014	11:33	Surfc	<i>Kryptoperidinium foliaceum</i> (B)		Present	

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Broadkill River							
<u>Prime Hook Creek</u>							
BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters							
	7/23/2014	11:33	Surfc	<i>Protoperidinium quinquecorne</i>	(B)	Present	
<u>Wagamon's Pond</u>							
BR44: Wagamon's Pond on Northern Shoreline, Milton							
	7/23/2014	10:30	Surfc	<i>Lyngbya</i>	(T)	Present	
Delaware Bay							
DB01: End of Cape Shores pier							
	7/17/2014	9:26	Surfc	<i>Heterocapsa rotundata</i>	(B)	Present	
	7/17/2014	9:26	Surfc	<i>Karlodinium veneficum</i>	(T)	Present	
	7/17/2014	9:26	Surfc	<i>Scrippsiella</i>	sp. (B)	Present	
	7/22/2014	8:24	Surfc	<i>Chaetoceros</i>	spp. (T)	Present	
	7/22/2014	8:24	Surfc	<i>Heterocapsa rotundata</i>	(B)	Present	
	7/22/2014	8:24	Surfc	<i>Karlodinium veneficum</i>	(T)	Present	
	7/30/2014	8:51	Surfc	<i>Heterocapsa rotundata</i>	(B)	Present	
	7/30/2014	8:51	Surfc	<i>Heterocapsa triquetra</i>	(B)	Present	
	7/30/2014	8:51	Surfc	<i>Prorocentrum minimum</i>	(T)	Present	
	7/30/2014	8:51	Surfc	<i>Prorocentrum triestinum</i>	(B)	Present	
Indian River							
IR24: Iron Branch - County road 331 at bridge							
	7/21/2014	10:06	Surfc	<i>Heterocapsa rotundata</i>	(B)	Present	
<u>Bethany Loop Canal</u>							
IR62: Loop Canal, Pa Ave terminus, Bethany Beach							
	7/23/2014	7:05	Surfc	<i>Chattonella subsalsa</i>	(T)	Common	0.190
	7/23/2014	7:05	Surfc	<i>Gyrodinium instriatum</i>	(B)	Common	0.540
	7/23/2014	7:05	Surfc	<i>Heterosigma akashiwo</i>	(T)	Present	
	7/23/2014	7:05	Surfc	<i>Kryptoperidinium foliaceum</i>	(B)	Many	4.620
	7/23/2014	7:05	Surfc	<i>Protoperidinium quinquecorne</i>	(B)	Many	2.200
	7/23/2014	7:05	Surfc	<i>Scrippsiella</i>	sp. (B)	Present	
<u>Indian River</u>							
IR04: Warwick Cove							
	7/21/2014	10:31	Surfc	<i>Akashiwo sanguinea</i>	(T)	Present	
	7/21/2014	10:31	Surfc	<i>Heterocapsa rotundata</i>	(B)	Common	0.100
	7/21/2014	10:31	Surfc	<i>Heterosigma akashiwo</i>	(T)	Present	
	7/21/2014	10:31	Surfc	<i>Karlodinium veneficum</i>	(T)	Present	
IR11: Pot Nets Seaside Pier							
	7/21/2014	10:59	Surfc	<i>Heterocapsa rotundata</i>	(B)	Present	
	7/21/2014	10:59	Surfc	<i>Heterosigma akashiwo</i>	(T)	Present	
	7/21/2014	10:59	Surfc	<i>Prorocentrum triestinum</i>	(B)	Present	
	7/21/2014	10:59	Surfc	<i>Scrippsiella</i>	sp. (B)	Present	
IR20: Bay Colony							
	7/21/2014	8:00	Surfc	<i>Heterocapsa rotundata</i>	(B)	Present	

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Indian River							
<u>Indian River</u>							
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	7/21/2014	7:45	Surfc		No HABs found		
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	7/24/2014	7:28	Surfc	<i>Amphidinium spp. (T)</i>		Very Rare	
	7/24/2014	7:28	Surfc	<i>Ceratium pentagonum (B)</i>		Very Rare	
	7/24/2014	7:28	Surfc	<i>Karenia papilionacea (T)</i>		Present	0.022
	7/24/2014	7:28	Surfc	<i>Prorocentrum scutellum (B)</i>		Rare	0.006
	7/24/2014	7:28	Surfc	<i>Prorocentrum sp. (T)</i>		Very Rare	
	7/24/2014	7:28	Surfc	<i>Prorocentrum triestinum (B)</i>		Rare	0.004
	7/24/2014	7:28	Surfc	<i>Pseudo-nitzschia spp. (T)</i>		Rare	0.009
	7/24/2014	7:28	Surfc	<i>Rhizosolenia spp. (T)</i>		Rare	0.001
	7/24/2014	7:28	Surfc	<i>Scrippsiella sp. (B)</i>		Rare	0.001
<u>White Creek</u>							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	7/21/2014	9:13	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
	7/21/2014	9:13	Surfc	<i>Karlodinium veneficum (T)</i>		Present	
	7/21/2014	9:13	Surfc	<i>Kryptoperidinium foliaceum (B)</i>		Present	
	7/21/2014	9:13	Surfc	<i>Protooperidinium quinquecorne (B)</i>		Present	
Little Assawoman Bay							
<u>Assawoman Canal</u>							
LA10: Assawoman Canal S end, Kent Ave Bridge							
	7/21/2014	7:15	Surfc	<i>Chloromorom toxicum (T)</i>		Present	
	7/21/2014	7:15	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
	7/21/2014	7:15	Surfc	<i>Heterosigma akashiwo (T)</i>		Present	
	7/21/2014	7:15	Surfc	<i>Karlodinium veneficum (T)</i>		Present	
<u>Dirickson Creek</u>							
LA03: Mulberry Landing							
	7/21/2014	7:31	Surfc	<i>Chattonella subsalsa (T)</i>		Present	
	7/21/2014	7:31	Surfc	<i>Heterocapsa rotundata (B)</i>		Present	
	7/21/2014	7:31	Surfc	<i>Prorocentrum triestinum (B)</i>		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	7/21/2014	8:10	Surfc	<i>Gyrodinium instriatum (B)</i>		Common	0.110
	7/21/2014	8:10	Surfc	<i>Heterocapsa rotundata (B)</i>		Common	0.380
	7/21/2014	8:10	Surfc	<i>Heterosigma akashiwo (T)</i>		Present	
	7/21/2014	8:10	Surfc	<i>Karlodinium veneficum (T)</i>		Present	
	7/21/2014	8:10	Surfc	<i>Protooperidinium quinquecorne (B)</i>		Present	
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	7/15/2014	7:26	Surfc	<i>Chattonella subsalsa (T)</i>		Present	
	7/15/2014	7:26	Surfc	<i>Chloromorom toxicum (T)</i>		Common	0.113
	7/15/2014	7:26	Surfc	<i>Fibrocapsa japonica (T)</i>		Present	

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Little Assawoman Bay							
<u>Jefferson Creek</u>							
SB10E: Russell Canal east dead end							
	7/15/2014	7:26	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/15/2014	7:26	Surfc	<i>Karlodinium veneficum</i> (T)		Common	0.175
	7/29/2014	7:05	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
	7/29/2014	7:05	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
	7/29/2014	7:05	Surfc	<i>Gyrodinium instriatum</i> (B)		Present	
	7/29/2014	7:05	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/29/2014	7:05	Surfc	<i>Heterosigma akashiwo</i> (T)		Present	
SB10W: Russell Canal west dead end							
	7/15/2014	7:41	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.180
	7/15/2014	7:41	Surfc	<i>Fibrocapsa japonica</i> (T)		Present	
	7/15/2014	7:41	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/15/2014	7:41	Surfc	<i>Heterosigma akashiwo</i> (T)		Present	
	7/15/2014	7:41	Surfc	<i>Karlodinium veneficum</i> (T)		Present	
	7/15/2014	7:41	Surfc	<i>Scrippsiella sp.</i> (B)		Present	
	7/29/2014	7:25	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
	7/29/2014	7:25	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.700
	7/29/2014	7:25	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/29/2014	7:25	Surfc	<i>Karlodinium veneficum</i> (T)		Present	
Rehoboth Bay							
<u>Bald Eagle Creek</u>							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	7/21/2014	8:00	Surfc	<i>Chattonella subsalsa</i> (T)		Present	
	7/21/2014	8:00	Surfc	<i>Chloromorom toxicum</i> (T)		Common	0.150
	7/21/2014	8:00	Surfc	<i>Kryptoperidinium foliaceum</i> (B)		Present	
<u>Guinea Creek</u>							
RB05: Mouth of Guinea Creek (Pot Nets Creekside)							
	7/21/2014	11:23	Surfc	<i>Chaetoceros spp.</i> (T)		Present	
	7/21/2014	11:23	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
	7/21/2014	11:23	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/21/2014	11:23	Surfc	<i>Karlodinium veneficum</i> (T)		Present	
	7/21/2014	11:23	Surfc	<i>Prorocentrum triestinum</i> (B)		Present	
RB06: Guinea Creek (Winding Creek Village)							
	7/21/2014	7:15	Surfc	<i>Gyrodinium instriatum</i> (B)		Present	
	7/21/2014	7:15	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	
	7/21/2014	7:15	Surfc	<i>Heterosigma akashiwo</i> (T)		Present	
<u>Love Creek</u>							
RB34: Love Creek at Rt 24 Bridge							
	7/21/2014	8:20	Surfc	<i>Chloromorom toxicum</i> (T)		Present	
	7/21/2014	8:20	Surfc	<i>Gyrodinium instriatum</i> (B)		Common	0.620
	7/21/2014	8:20	Surfc	<i>Heterocapsa rotundata</i> (B)		Present	

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Rehoboth Bay

Love Creek

RB34: Love Creek at Rt 24 Bridge

7/21/2014	8:20	Surfc	<i>Heterosigma akashiwo (T)</i>		Present	
7/21/2014	8:20	Surfc	<i>Karlodinium veneficum (T)</i>		Present	
7/21/2014	8:20	Surfc	<i>Kryptoperidinium foliaceum (B)</i>		Present	

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