Harmful Algae Report

All data between 8/18/2016 and 9/1/2016

University of Delaware Citizen Monitoring Program

Water Body / Tributary / Site	Date	Time	Sample Depth	Name	Comment if ID uncertain	Abundance	MC/L
Atlantic Ocean							
RWPM: Dagsworthy, Dewey Beach							
	8/24/2016	11:35	Surfc	*"Gymnodinioid" sp. (S)*	25-40 um Grn	Present	
				Heterocapsa rotundata (B)		Present	
				Heterosigma akashiwo (T)		Present	
				Karenia papilionacea (T)		Present	0.010
				Karlodinium veneficum (T)		Present	
				Prorocentrum micans (B)		Present	
				Prorocentrum triestinum (B)		Common	0.163
				Scrippsiella sp. (B)		Present	
RWPMVIII: Town of Fenwick							
	8/24/2016	10:50	Surfc	*"Gymnodinioid" sp. (S)*	25-40 um Grn	Present	
				Karenia papilionacea (T)		Common	0.101
				Prorocentrum triestinum (B)		Common	0.250
				Protoperidinium quinquecorne (B)		Present	
Broadkill River							
Broadkill River							
BR01: Broadkill river @ PEL dock.							
	8/24/2016	9:00	Net	*Chaetoceros spp. (T)*			
				Heterocapsa rotundata (B)			
				Prorocentrum triestinum (B)			
			Surfc		No HABs found		
	8/31/2016	8:50	Net	*"Gymnodinioid" sp. (S)*	25-40 um Grn		
				Fibrocapsa japonica (T)			
				Prorocentrum triestinum (B)			
			Surfc	*"Gymnodinioid" sp. (S)*	25-40 um Grn	Rare	0.002
				Amphidinium spp. (T)		Rare	0.003
				Heterocapsa rotundata (B)		Present	
				Karenia papilionacea (T)		Rare	0.004
				Karlodinium veneficum (T)		Present	
				Prorocentrum scutellum (B)		Very Rare	
				Prorocentrum triestinum (B)		Rare	0.004
				Scrippsiella sp. (B)		Rare	0.002
BR20: Broadkill River at Milton tidal pond							
	8/24/2016	6:15	Surfc	*Aphanizomenon spp. (T)*		Common	0.875
				Merotrichia sp. (B)		Present	
Diamond Pond							
BR48: Diamond Pond at Spillway							
	8/24/2016	11:15	Surfc	*Aphanizomenon spp. (T)*		Common	0.750
				Microcystis spp. (T)		Abundant	20.000
Old Mill Creek							
BR21: Old Mill Creek downstream from Red Mill Pond							
	8/24/2016	11:05	Surfc	*(Unknown) (B*)*	Thin cyano straight	Abundant	39.600
				(Unknown) (B)*	<10 um oval grn flag	Abundant	11.500
				(Unknown) (B)*	Thin cyano coiled	Abundant	35.200

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.

Water Body / Tributary / Site	Date	Time	Sample Depth	Name	Comment if ID uncertain	Abundance	MC/L
Broadkill River							
Old Mill Creek							
BR21: Old Mill Creek downstream from Red Mill Pond							
	8/24/2016	11:05	Surfc	*Aphanizomenon spp. (T)*		Abundant	61.900
				Heterosigma akashiwo (T)		Many	1.300
				Microcystis spp. (T)		Abundant	55.000
Prime Hook Creek							
BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters							
	8/24/2016	10:40	Surfc	*Anabaena spp. (T)*		Many	1.063
				Aphanizomenon spp. (T)		Common	0.250
				Chaetoceros spp. (T)		Many	1.000
				Chloromorum toxicum (T)		Common	0.213
				Gyrodinium instriatum (B)		Present	
Red Mill Pond							
BR54: Red Mill Pond outlet at Rt 1							
	8/24/2016	11:25	Surfc	*(Unknown) (B*)*	Thin cyano coiled	Very Abundant	123.200
				(Unknown) (B)*	Thin cyano straight	Very Abundant	255.200
				Aphanizomenon spp. (T)		Very Abundant	303.600
				Aphanocapsa sp. (B)*		Abundant	10.000
				Microcystis spp. (T)		Very Abundant	143.000
Delaware Bay							
Delaware Bay							
DB01: End of Cape Shores pier							
	8/23/2016	9:02	Surfc	*Amphidinium spp. (T)*		Very Rare	
				Chaetoceros spp. (T)		Rare	0.003
				Heterocapsa rotundata (B)		Common	0.138
				Karenia papilionacea (T)		Very Rare	
				Karlodinium veneficum (T)		Present	
				Prorocentrum triestinum (B)		Present	
				Rhizosolenia spp. (T)		Very Rare	
				Scrippsiella sp. (B)		Rare	0.004
	8/29/2016	8:01		*Amphidinium spp. (T)*		Rare	0.002
				Chaetoceros spp. (T)		Rare	0.004
				Heterocapsa rotundata (B)		Present	
				Heterosigma akashiwo (T)		Present	
				Karenia papilionacea (T)		Rare	0.005
				Karlodinium veneficum (T)		Present	
				Prorocentrum scutellum (B)		Rare	0.002
				Pseudo-nitzschia spp. (T)		Rare	0.002
				Scrippsiella sp. (B)		Rare	0.002
Dirickson Pond							
Dirickson Pond							
LA38: The Hamlet at Dirickson Pond							
	8/23/2016	9:11	Surfc	*Anabaena spp. (T)*		Common	0.500
				Aphanizomenon spp. (T)		Abundant	44.000
Indian River							
Indian River							
IR11: Pot Nets Seaside Pier							
	8/23/2016	10:20	Surfc	*Amphidinium spp. (T)*		Very Rare	

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Indian River							
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IR11: Pot Nets Seaside Pier							
	8/23/2016	10:20	Surfc	*Karenia papilionacea (T)*		Common	0.131
				Prorocentrum scutellum (B)		Very Rare	
				Prorocentrum triestinum (B)		Present	
				Rhizosolenia spp. (T)		Rare	0.001
				Scrippsiella sp. (B)		Present	
IR24: Iron Branch - County road 331 at bridge							
	8/23/2016	11:00	Surfc	*Chloromorum toxicum (T)*		Common	0.100
				Gyrodinium instriatum (B)		Common	0.100
				Navicula (small) (B)*		Very Abundant	132.000
IR36: James Farm, base of Pasture Point Knee deep 150 yds from shore							
	8/23/2016	7:45	Surfc	*Heterosigma akashiwo (T)*		Present	
				Kryptoperidinium foliaceum (B)		Common	0.325
IR39: North side of Inlet at Wheelchair fishing platform under new bridge.							
	8/30/2016	8:25	Surfc	*"Gymnodinioid" sp. (S)*	25-40 um Grn	Present	
				Amphidinium spp. (T)		Very Rare	
				Chaetoceros spp. (T)		Rare	0.002
				Karenia papilionacea (T)		Common	0.229
				Karlodinium veneficum (T)		Present	
				Prorocentrum scutellum (B)		Rare	0.001
				Prorocentrum triestinum (B)		Present	
				Scrippsiella sp. (B)		Rare	0.002
Pepper Creek							
IR51: Pepper Creek, Creekside							
	8/23/2016	7:50	Surfc	*Chloromorum toxicum (T)*		Common	0.500
Vines Creek							
IR38: Vines Lane							
	8/23/2016	7:45	Surfc	*Chloromorum toxicum (T)*		Many	8.800
				Karlodinium veneficum (T)		Present	
White Creek							
IR32: Holly Terrace Acres Canal Dead End, White Creek							
	8/22/2016	8:55	Surfc	*Akashiwo sanguinea (T)*		Present	
				Gyrodinium instriatum (B)		Common	0.163
				Heterocapsa rotundata (B)		Present	
				Heterosigma akashiwo (T)		Present	
				Karlodinium veneficum (T)		Present	
				Kryptoperidinium foliaceum (B)		Common	0.113
				Protoperidinium quinquecorne (B)		Common	0.138
Little Assawoman Bay							
Dirickson Creek							
LA03: Mulberry Landing							
	8/23/2016	7:21	Surfc	*Heterocapsa rotundata (B)*		Common	0.100
				Karlodinium veneficum (T)		Present	
LA09: Dirickson Creek at Road 381 bridge.							
	8/23/2016	7:51	Surfc	*Heterocapsa rotundata (B)*		Abundant	13.200
				Karlodinium veneficum (T)		Present	
Jefferson Creek							

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Little Assawoman Bay							
Jefferson Creek							
SB10E: Russell Canal east dead end							
	8/23/2016	7:19	Surfc	*Chattonella subsalsa (T)*		Common	0.175
				Chloromorum toxicum (T)		Present	
				Gyrodinium instriatum (B)		Present	
				Heterocapsa rotundata (B)		Common	0.125
				Karlodinium veneficum (T)		Present	
SB10W: Russell Canal west dead end							
	8/23/2016	7:12	Surfc	*Chloromorum toxicum (T)*		Present	
				Heterocapsa rotundata (B)		Common	0.250
				Karlodinium veneficum (T)		Present	
Little Assawoman Bay							
LA46: Fenwick Island Tide Gauge							
	8/23/2016	9:41	Surfc	*Akashiwo sanguinea (T)*		Present	
				Chloromorum toxicum (T)		Present	
				Heterocapsa rotundata (B)		Common	0.400
				Kryptoperidinium foliaceum (B)		Present	
Rehoboth Bay							
Bald Eagle Creek							
RB64: Torquay Canal, west side of Land's End near UD Site #1							
	8/22/2016	9:25	Surfc	*Chattonella subsalsa (T)*		Present	
				Gyrodinium instriatum (B)		Present	
				Heterocapsa rotundata (B)		Present	
				Karlodinium veneficum (T)		Present	
				Kryptoperidinium foliaceum (B)		Common	0.200
Guinea Creek							
RB06: Guinea Creek (Winding Creek Village)							
	8/23/2016	7:27	Surfc		No HABs found		
Love Creek							
RB34: Love Creek at Rt 24 Bridge							
	8/23/2016	9:05	Surfc	*Gyrodinium instriatum (B)*		Many	4.400
				Karlodinium veneficum (T)		Present	

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