

Harmful Algae Report

All data between 7/21/2010 and 8/6/2010

University of Delaware Citizen Monitoring Program

| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|--|-----------|------|--------------|--|----------------------------|-----------|-------|
| Assawoman Bay | | | | | | | |
| <u>Roy Creek</u> | | | | | | | |
| BA01: Keenwick on Bay, Roy Creek | | | | | | | |
| | 7/27/2010 | 8:08 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Present | |
| | 7/27/2010 | 8:08 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Common | 0.290 |
| | 7/27/2010 | 8:08 | Surfc | <i>Karlodinium veneficum</i> (T) | | Common | 0.110 |
| | 7/27/2010 | 8:08 | Surfc | <i>Prorocentrum minimum</i> (T) | | Present | |
| Atlantic Ocean | | | | | | | |
| RWPM14: Tower Rd Ocean, Delaware Seashore State Park | | | | | | | |
| | 8/3/2010 | 9:05 | Surfc | <i>"Gymnodinioid" sp.</i> (S) | 25-40 um Grn | Rare | 0.001 |
| | 8/3/2010 | 9:05 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Rare | 0.001 |
| | 8/3/2010 | 9:05 | Surfc | <i>Chaetoceros spp.</i> (T) | | Present | 0.025 |
| | 8/3/2010 | 9:05 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Rare | 0.001 |
| | 8/3/2010 | 9:05 | Surfc | <i>Karenia papilionacea</i> (T) | | Very Rare | |
| | 8/3/2010 | 9:05 | Surfc | <i>Karlodinium veneficum</i> (T) | | Very Rare | |
| | 8/3/2010 | 9:05 | Surfc | <i>Prorocentrum minimum</i> (T) | | Rare | 0.002 |
| | 8/3/2010 | 9:05 | Surfc | <i>Prorocentrum scutellum</i> (B) | | Rare | 0.001 |
| | 8/3/2010 | 9:05 | Surfc | <i>Prorocentrum triestinum</i> (B) | | Rare | 0.001 |
| | 8/3/2010 | 9:05 | Surfc | <i>Proto-peridinium quinquecorne</i> (B) | | Rare | 0.001 |
| | 8/3/2010 | 9:05 | Surfc | <i>Pseudo-nitzschia spp.</i> (T) | | Rare | 0.001 |
| | 8/3/2010 | 9:05 | Surfc | <i>Rhizosolenia spp.</i> (T) | | Very Rare | |
| | 8/3/2010 | 9:05 | Surfc | <i>Scripsiella sp.</i> (B) | | Very Rare | |
| RWPM8: Cape Henlopen State Park Beach (2) | | | | | | | |
| | 7/27/2010 | 8:50 | Surfc | <i>Chaetoceros spp.</i> (T) | | Present | 0.015 |
| | 7/27/2010 | 8:50 | Surfc | <i>Prorocentrum minimum</i> (T) | | Very Rare | |
| | 7/27/2010 | 8:50 | Surfc | <i>Prorocentrum scutellum</i> (B) | | Very Rare | |
| | 7/27/2010 | 8:50 | Surfc | <i>Prorocentrum triestinum</i> (B) | | Rare | 0.002 |
| | 7/27/2010 | 8:50 | Surfc | <i>Rhizosolenia spp.</i> (T) | | Very Rare | |
| RWPMIV: Fenwick Island State Park | | | | | | | |
| | 8/3/2010 | 8:20 | Surfc | <i>Amphidinium spp.</i> (T) | | Very Rare | |
| | 8/3/2010 | 8:20 | Surfc | <i>Chaetoceros spp.</i> (T) | | Present | 0.064 |
| | 8/3/2010 | 8:20 | Surfc | <i>Ditylum spp.</i> (T) | | Very Rare | |
| | 8/3/2010 | 8:20 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Rare | 0.007 |
| | 8/3/2010 | 8:20 | Surfc | <i>Karenia papilionacea</i> (T) | | Very Rare | |
| | 8/3/2010 | 8:20 | Surfc | <i>Karlodinium veneficum</i> (T) | | Very Rare | |
| | 8/3/2010 | 8:20 | Surfc | <i>Prorocentrum minimum</i> (T) | | Very Rare | |
| | 8/3/2010 | 8:20 | Surfc | <i>Prorocentrum scutellum</i> (B) | | Rare | 0.002 |
| | 8/3/2010 | 8:20 | Surfc | <i>Prorocentrum triestinum</i> (B) | | Rare | 0.001 |
| | 8/3/2010 | 8:20 | Surfc | <i>Pseudo-nitzschia spp.</i> (T) | | Rare | 0.003 |
| | 8/3/2010 | 8:20 | Surfc | <i>Rhizosolenia spp.</i> (T) | | 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.

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| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|--|-----------|-------|--------------|--|----------------------------|---------------|----------|
| Atlantic Ocean | | | | | | | |
| RWPMIV: Fenwick Island State Park | | | | | | | |
| | 8/3/2010 | 8:20 | Surfc | <i>Scrippsiella sp. (B)</i> | | Rare | 0.003 |
| Broadkill River | | | | | | | |
| BR01: Broadkill river @ PEL dock. | | | | | | | |
| | 7/28/2010 | 9:00 | Net | "Gymnodinioid" sp. (S) | 25-40 um Grn | | |
| | 7/28/2010 | 9:00 | Net | <i>Chaetoceros spp. (T)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Chattonella cf. verruculosa (T)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Dinophysis acuminata (T)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Heterocapsa rotundata (B)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Heterosigma akashiwo (T)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Prorocentrum minimum (T)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Prorocentrum scutellum (B)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Prorocentrum triestinum (B)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Rhizosolenia spp. (T)</i> | | | |
| | 7/28/2010 | 9:00 | Net | <i>Scrippsiella sp. (B)</i> | | | |
| | 7/28/2010 | 9:00 | Surfc | <i>Chaetoceros spp. (T)</i> | | Present | |
| | 7/28/2010 | 9:00 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 7/28/2010 | 9:00 | Surfc | <i>Prorocentrum minimum (T)</i> | | Present | |
| BR20: Broadkill River at Milton tidal pond | | | | | | | |
| | 7/28/2010 | 6:15 | Surfc | <i>Anabaena spp. (T)</i> | | Common | 0.750 |
| | 7/28/2010 | 6:15 | Surfc | <i>Kryptoperidinium foliaceum (B)</i> | | Present | |
| Diamond Pond | | | | | | | |
| BR48: Diamond Pond | | | | | | | |
| | 7/28/2010 | 11:15 | Surfc | (Unknown) (B*) | tiny filament | Abundant | 17.600 |
| | 7/28/2010 | 11:15 | Surfc | <i>Anabaena spp. (T)</i> | | Common | 0.375 |
| | 7/28/2010 | 11:15 | Surfc | <i>Chaetoceros spp. (T)</i> | | Present | |
| | 7/28/2010 | 11:15 | Surfc | <i>Microcystis spp. (T)</i> | | Many | 2.500 |
| Old Mill Creek | | | | | | | |
| BR21: Old Mill Creek downstream from Red Mill Pond | | | | | | | |
| | 7/28/2010 | 12:30 | Surfc | <i>Heterosigma akashiwo (T)</i> | | Present | |
| | 7/28/2010 | 12:30 | Surfc | <i>Kryptoperidinium foliaceum (B)</i> | | Present | |
| Prime Hook Creek | | | | | | | |
| BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters | | | | | | | |
| | 7/22/2010 | 14:55 | Surfc | <i>Chaetoceros spp. (T)</i> | | Common | |
| | 7/22/2010 | 14:55 | Surfc | <i>Karlodinium veneficum (T)</i> | | Many | 2.625 |
| | 7/22/2010 | 14:55 | Surfc | <i>Prymnesium sp. (T)</i> | | Very Abundant | 1078.000 |
| | 7/28/2010 | 11:50 | Surfc | "Euglenoids" (B*) | | Abundant | 10.600 |
| | 7/28/2010 | 11:50 | Surfc | <i>Anabaena spp. (T)</i> | | Abundant | 15.200 |
| | 7/28/2010 | 11:50 | Surfc | <i>Chaetoceros spp. (T)</i> | | Many | 1.000 |
| | 7/28/2010 | 11:50 | Surfc | <i>Cylindrotheca closterium (B*)</i> | | Abundant | 14.700 |
| | 7/28/2010 | 11:50 | Surfc | <i>Karlodinium veneficum (T)</i> | | Many | 5.500 |
| | 7/28/2010 | 11:50 | Surfc | <i>Kryptoperidinium foliaceum (B)</i> | | Present | |
| | 7/28/2010 | 11:50 | Surfc | <i>Prymnesium sp. (T)</i> | | Very Abundant | 842.000 |

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.

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| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|--|-----------|-------|--------------|--|----------------------------|-----------|--------|
| Broadkill River | | | | | | | |
| <u>Prime Hook Creek</u> | | | | | | | |
| BR03: Prime Hook Creek at Boat Ramp at Refuge Headquarters | | | | | | | |
| | 7/28/2010 | 11:50 | Surfc | <i>Scrippsiella sp. (B)</i> | | Present | |
| <u>Red Mill Pond</u> | | | | | | | |
| BR54: Red Mill Pond outlet at Rt 1 | | | | | | | |
| | 7/28/2010 | 12:42 | Surfc | <i>Anabaena spp. (T)</i> | | Many | 3.200 |
| | 7/28/2010 | 12:42 | Surfc | <i>Aphanizomenon spp. (T)</i> | | Abundant | 15.800 |
| | 7/28/2010 | 12:42 | Surfc | <i>Microcystis spp. (T)</i> | | Abundant | 11.100 |
| Delaware Bay | | | | | | | |
| DB01: End of Cape Shores pier | | | | | | | |
| | 7/26/2010 | 9:52 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 7/26/2010 | 9:52 | Surfc | <i>Prorocentrum minimum (T)</i> | | Present | |
| | 7/26/2010 | 9:52 | Surfc | <i>Rhizosolenia spp. (T)</i> | | Present | |
| | 8/2/2010 | 9:10 | Surfc | <i>"Gymnodinioid" sp. (S)</i> | 25-40 um Grn | Present | |
| | 8/2/2010 | 9:10 | Surfc | <i>Chaetoceros spp. (T)</i> | | Common | 0.200 |
| | 8/2/2010 | 9:10 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 8/2/2010 | 9:10 | Surfc | <i>Prorocentrum triestinum (B)</i> | | Present | |
| | 8/2/2010 | 9:10 | Surfc | <i>Rhizosolenia spp. (T)</i> | | Present | |
| <u>Canary Creek</u> | | | | | | | |
| BR19: Canary Creek at New Road | | | | | | | |
| | 7/27/2010 | 14:45 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 7/27/2010 | 14:45 | Surfc | <i>Heterosigma akashiwo (T)</i> | | Common | 0.200 |
| | 7/27/2010 | 14:45 | Surfc | <i>Kryptoperidinium foliaceum (B)</i> | | Common | 0.180 |
| BR40: Canary Creek at Pilottown Rd | | | | | | | |
| | 7/28/2010 | 9:30 | Surfc | <i>Chaetoceros spp. (T)</i> | | Present | |
| | 7/28/2010 | 9:30 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 7/28/2010 | 9:30 | Surfc | <i>Prorocentrum scutellum (B)</i> | | Present | |
| | 7/28/2010 | 9:30 | Surfc | <i>Scrippsiella sp. (B)</i> | | Present | |
| Indian River | | | | | | | |
| <u>Assawoman Canal</u> | | | | | | | |
| IR50: Assawoman Canal at N end, marina dock | | | | | | | |
| | 7/27/2010 | 8:16 | Surfc | <i>Akashiwo sanguinea (T)</i> | | Present | |
| | 7/27/2010 | 8:16 | Surfc | <i>Chattonella cf. verruculosa (T)</i> | | Common | 0.140 |
| | 7/27/2010 | 8:16 | Surfc | <i>Gyrodinium instriatum (B)</i> | | Present | |
| | 7/27/2010 | 8:16 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Common | 0.230 |
| | 7/27/2010 | 8:16 | Surfc | <i>Heterosigma akashiwo (T)</i> | | Present | |
| | 7/27/2010 | 8:16 | Surfc | <i>Karlodinium veneficum (T)</i> | | Present | |
| <u>Bethany Loop Canal</u> | | | | | | | |
| IR62: Loop Canal, Pa Ave terminus, Bethany Beach | | | | | | | |
| | 7/26/2010 | 8:10 | Surfc | <i>Amphidinium spp. (T)</i> | | Present | |
| | 7/26/2010 | 8:10 | Surfc | <i>Chattonella subsalsa (T)</i> | | Common | 0.800 |
| | 7/26/2010 | 8:10 | Surfc | <i>Gyrodinium instriatum (B)</i> | | Present | |

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| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|--|-----------|-------|--------------|---|----------------------------|-----------|-------|
| Indian River | | | | | | | |
| <u>Bethany Loop Canal</u> | | | | | | | |
| IR62: Loop Canal, Pa Ave terminus, Bethany Beach | | | | | | | |
| | 7/26/2010 | 8:10 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 8:10 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Common | 0.710 |
| | 7/26/2010 | 8:10 | Surfc | <i>Protoperidinium quinquecorne</i> (B) | | Present | |
| <u>Indian River</u> | | | | | | | |
| IR04: Warwick Cove | | | | | | | |
| | 7/26/2010 | 9:44 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Present | |
| | 7/26/2010 | 9:44 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Present | |
| | 7/26/2010 | 9:44 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| IR07: Holt's Landing State Park | | | | | | | |
| | 7/27/2010 | 7:30 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Present | |
| | 7/27/2010 | 7:30 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Present | |
| | 7/27/2010 | 7:30 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Present | |
| | 7/27/2010 | 7:30 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| IR11: Pot Nets Seaside Pier | | | | | | | |
| | 7/26/2010 | 11:05 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Present | |
| | 7/26/2010 | 11:05 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| | 7/26/2010 | 11:05 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| | 7/26/2010 | 11:05 | Surfc | <i>Prorocentrum minimum</i> (T) | | Present | |
| IR20: Bay Colony | | | | | | | |
| | 7/26/2010 | 7:50 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Common | 0.110 |
| | 7/26/2010 | 7:50 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Present | |
| | 7/26/2010 | 7:50 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Present | |
| | 7/26/2010 | 7:50 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 7:50 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| IR36B: James Farm, Pasture Point By Boat | | | | | | | |
| | 7/27/2010 | 8:30 | Surfc | <i>Chattonella subsalsa</i> (T) | | Present | |
| | 7/27/2010 | 8:30 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Present | |
| | 7/27/2010 | 8:30 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| | 7/27/2010 | 8:30 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| IR39: North side of Inlet at Wheelchair fishing platform under new bridge. | | | | | | | |
| | 7/27/2010 | 9:53 | Surfc | <i>Ceratium pentagonum</i> (B) | | Very Rare | |
| | 7/27/2010 | 9:53 | Surfc | <i>Ceratium spp.</i> (T) | | Very Rare | |
| | 7/27/2010 | 9:53 | Surfc | <i>Chaetoceros spp.</i> (T) | | Present | 0.039 |
| | 7/27/2010 | 9:53 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Rare | 0.001 |
| | 7/27/2010 | 9:53 | Surfc | <i>Prorocentrum minimum</i> (T) | | Very Rare | |
| | 7/27/2010 | 9:53 | Surfc | <i>Prorocentrum scutellum</i> (B) | | Rare | 0.005 |
| | 7/27/2010 | 9:53 | Surfc | <i>Prorocentrum triestinum</i> (B) | | Rare | 0.003 |
| | 7/27/2010 | 9:53 | Surfc | <i>Pseudo-nitzschia spp.</i> (T) | | Rare | 0.006 |
| | 7/27/2010 | 9:53 | Surfc | <i>Rhizosolenia spp.</i> (T) | | Rare | 0.002 |
| | 7/27/2010 | 9:53 | Surfc | <i>Scrippsiella sp.</i> (B) | | Very Rare | |

Vines Creek

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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| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|---|-----------|------|--------------|---|----------------------------|-----------|-------|
| Indian River | | | | | | | |
| <u>Vines Creek</u> | | | | | | | |
| IR38: Vines Lane | | | | | | | |
| | 7/27/2010 | 8:00 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Present | |
| | 7/27/2010 | 8:00 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Common | 0.960 |
| <u>White Creek</u> | | | | | | | |
| IR32: Holly Terrace Acres Canal Dead End, White Creek | | | | | | | |
| | 7/26/2010 | 8:58 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Present | |
| | 7/26/2010 | 8:58 | Surfc | <i>Chattonella subsalsa</i> (T) | | Common | 0.962 |
| | 7/26/2010 | 8:58 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Common | 0.225 |
| | 7/26/2010 | 8:58 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Common | 0.125 |
| | 7/26/2010 | 8:58 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 8:58 | Surfc | <i>Karlodinium veneficum</i> (T) | | Common | 0.262 |
| | 7/26/2010 | 8:58 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| | 7/26/2010 | 8:58 | Surfc | <i>Prorocentrum minimum</i> (T) | | Present | |
| | 7/26/2010 | 8:58 | Surfc | <i>Protoperidinium quinquecorne</i> (B) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Chattonella subsalsa</i> (T) | | Many | 1.600 |
| | 7/26/2010 | 9:03 | Surfc | <i>Fibrocapsa japonica</i> (T) | | Common | 0.175 |
| | 7/26/2010 | 9:03 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Karlodinium veneficum</i> (T) | | Many | 1.900 |
| | 7/26/2010 | 9:03 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Prorocentrum minimum</i> (T) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Prorocentrum triestinum</i> (B) | | Present | |
| | 7/26/2010 | 9:03 | Surfc | <i>Protoperidinium quinquecorne</i> (B) | | Present | |
| | 8/2/2010 | 8:15 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Present | |
| | 8/2/2010 | 8:15 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Common | 0.288 |
| | 8/2/2010 | 8:15 | Surfc | <i>Chattonella subsalsa</i> (T) | | Many | 6.820 |
| | 8/2/2010 | 8:15 | Surfc | <i>Fibrocapsa japonica</i> (T) | | Many | 2.860 |
| | 8/2/2010 | 8:15 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Common | 0.238 |
| | 8/2/2010 | 8:15 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 8/2/2010 | 8:15 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| | 8/2/2010 | 8:15 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| Little Assawoman Bay | | | | | | | |
| LA45: Fenwick Island Bayside | | | | | | | |
| | 7/27/2010 | 8:04 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Present | |
| | 7/27/2010 | 8:04 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Present | |
| <u>Assawoman Canal</u> | | | | | | | |
| LA10: Assawoman Canal @ Kent Ave Bridge | | | | | | | |
| | 7/26/2010 | 7:45 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Common | 0.212 |
| | 7/26/2010 | 7:45 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Present | |
| | 7/26/2010 | 7:45 | Surfc | <i>Chattonella subsalsa</i> (T) | | Present | |

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.

University of Delaware Citizen Monitoring Program

| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|---|-----------|------|--------------|---|----------------------------|-----------|--------|
| Little Assawoman Bay | | | | | | | |
| <u>Assawoman Canal</u> | | | | | | | |
| LA10: Assawoman Canal @ Kent Ave Bridge | | | | | | | |
| | 7/26/2010 | 7:45 | Surfc | <i>Fibrocapsa japonica</i> (T) | | Present | |
| | 7/26/2010 | 7:45 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Present | |
| | 7/26/2010 | 7:45 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Present | |
| | 7/26/2010 | 7:45 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| <u>Dirickson Creek</u> | | | | | | | |
| LA03: Mulberry Landing | | | | | | | |
| | 7/26/2010 | 8:02 | Surfc | <i>Chaetoceros</i> spp. (T) | | Present | |
| | 7/26/2010 | 8:02 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Present | |
| | 7/26/2010 | 8:02 | Surfc | <i>Chattonella subsalsa</i> (T) | | Present | |
| | 7/26/2010 | 8:02 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Common | 0.300 |
| | 7/26/2010 | 8:02 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 8:02 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| | 7/26/2010 | 8:02 | Surfc | <i>Prorocentrum minimum</i> (T) | | Present | |
| LA09: Dirickson Creek at Road 381 bridge. | | | | | | | |
| | 7/26/2010 | 8:35 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Present | |
| | 7/26/2010 | 8:35 | Surfc | <i>Chattonella subsalsa</i> (T) | | Abundant | 13.600 |
| | 7/26/2010 | 8:35 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Present | |
| | 7/26/2010 | 8:35 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Abundant | 18.500 |
| | 7/26/2010 | 8:35 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 8:35 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| <u>Jefferson Creek</u> | | | | | | | |
| SB10E: Russell Canal east dead end | | | | | | | |
| | 7/27/2010 | 8:16 | Surfc | <i>Chattonella subsalsa</i> (T) | | Present | |
| | 7/27/2010 | 8:16 | Surfc | <i>Fibrocapsa japonica</i> (T) | | Common | 0.460 |
| | 7/27/2010 | 8:16 | Surfc | <i>Prorocentrum minimum</i> (T) | | Common | 0.120 |
| | 8/3/2010 | 8:48 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Many | 2.290 |
| | 8/3/2010 | 8:48 | Surfc | <i>Chattonella subsalsa</i> (T) | | Common | 0.100 |
| | 8/3/2010 | 8:48 | Surfc | <i>Fibrocapsa japonica</i> (T) | | Many | 4.840 |
| | 8/3/2010 | 8:48 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Present | |
| | 8/3/2010 | 8:48 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Common | 0.163 |
| | 8/3/2010 | 8:48 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Many | 1.260 |
| | 8/3/2010 | 8:48 | Surfc | <i>Karlodinium veneficum</i> (T) | | Common | 0.238 |
| | 8/3/2010 | 8:48 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| | 8/3/2010 | 8:48 | Surfc | <i>Protoperidinium quinquecorne</i> (B) | | Present | |
| | 8/3/2010 | 8:48 | Surfc | <i>Scripsiella</i> sp. (B) | | Present | |
| SB10W: Russell Canal west dead end | | | | | | | |
| | 7/27/2010 | 8:10 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Present | |
| | 7/27/2010 | 8:10 | Surfc | <i>Fibrocapsa japonica</i> (T) | | Common | 0.200 |
| | 7/27/2010 | 8:10 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Common | 0.140 |
| | 7/27/2010 | 8:10 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Common | 0.188 |
| | 8/3/2010 | 8:39 | Surfc | <i>Akashiwo sanguinea</i> (T) | | Present | |

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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.

University of Delaware Citizen Monitoring Program

| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|--|-----------|-------|--------------|--|----------------------------|-----------|--------|
| Little Assawoman Bay | | | | | | | |
| <u>Jefferson Creek</u> | | | | | | | |
| SB10W: Russell Canal west dead end | | | | | | | |
| | 8/3/2010 | 8:39 | Surfc | <i>Chattonella cf. verruculosa (T)</i> | | Present | |
| | 8/3/2010 | 8:39 | Surfc | <i>Chattonella subsalsa (T)</i> | | Present | |
| | 8/3/2010 | 8:39 | Surfc | <i>Fibrocapsa japonica (T)</i> | | Common | 0.288 |
| | 8/3/2010 | 8:39 | Surfc | <i>Gyrodinium instriatum (B)</i> | | Common | 0.100 |
| | 8/3/2010 | 8:39 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Common | 0.163 |
| | 8/3/2010 | 8:39 | Surfc | <i>Heterosigma akashiwo (T)</i> | | Present | |
| | 8/3/2010 | 8:39 | Surfc | <i>Karlodinium veneficum (T)</i> | | Present | |
| | 8/3/2010 | 8:39 | Surfc | <i>Pleurochrysis carterae (B*)</i> | | Abundant | 26.400 |
| Rehoboth Bay | | | | | | | |
| ML: Massey's Landing | | | | | | | |
| | 7/26/2010 | 11:25 | Surfc | " <i>Gymnodinioid</i> " sp. (S) | 25-40 um Grn | Present | |
| | 7/26/2010 | 11:25 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 7/26/2010 | 11:25 | Surfc | <i>Kryptoperidinium foliaceum (B)</i> | | Present | |
| RB07: West Bay Park | | | | | | | |
| | 7/27/2010 | 8:30 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| <u>Bald Eagle Creek</u> | | | | | | | |
| RB46: Torquay Canal at East bulkhead on Land's End. | | | | | | | |
| | 7/26/2010 | 8:32 | Surfc | <i>Chattonella cf. verruculosa (T)</i> | | Common | 0.780 |
| | 7/26/2010 | 8:32 | Surfc | <i>Chattonella subsalsa (T)</i> | | Present | |
| | 7/26/2010 | 8:32 | Surfc | <i>Gyrodinium instriatum (B)</i> | | Present | |
| | 7/26/2010 | 8:32 | Surfc | <i>Heterosigma akashiwo (T)</i> | | Present | |
| | 7/26/2010 | 8:32 | Surfc | <i>Karlodinium veneficum (T)</i> | | Present | |
| | 7/26/2010 | 8:32 | Surfc | <i>Kryptoperidinium foliaceum (B)</i> | | Present | |
| RB64: Torquay Canal, west side of Land's End near UD Site #1 | | | | | | | |
| | 7/26/2010 | 8:45 | Surfc | <i>Chattonella cf. verruculosa (T)</i> | | Many | 6.200 |
| | 7/26/2010 | 8:45 | Surfc | <i>Chattonella subsalsa (T)</i> | | Present | |
| | 7/26/2010 | 8:45 | Surfc | <i>Gyrodinium instriatum (B)</i> | | Present | |
| | 7/26/2010 | 8:45 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 7/26/2010 | 8:45 | Surfc | <i>Heterosigma akashiwo (T)</i> | | Common | 0.125 |
| | 7/26/2010 | 8:45 | Surfc | <i>Karlodinium veneficum (T)</i> | | Present | |
| | 7/26/2010 | 8:45 | Surfc | <i>Kryptoperidinium foliaceum (B)</i> | | Present | |
| | 8/2/2010 | 8:53 | Surfc | <i>Chattonella cf. verruculosa (T)</i> | | Common | 0.600 |
| | 8/2/2010 | 8:53 | Surfc | <i>Chattonella subsalsa (T)</i> | | Common | 0.625 |
| | 8/2/2010 | 8:53 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |
| | 8/2/2010 | 8:53 | Surfc | <i>Heterosigma akashiwo (T)</i> | | Common | 0.475 |
| | 8/2/2010 | 8:53 | Surfc | <i>Karlodinium veneficum (T)</i> | | Common | 0.288 |
| <u>Guinea Creek</u> | | | | | | | |
| RB05: Mouth of Guinea Creek (Pot Nets Creekside) | | | | | | | |
| | 7/26/2010 | 11:43 | Surfc | <i>Akashiwo sanguinea (T)</i> | | Present | |
| | 7/26/2010 | 11:43 | Surfc | <i>Chattonella cf. verruculosa (T)</i> | | Present | |
| | 7/26/2010 | 11:43 | Surfc | <i>Heterocapsa rotundata (B)</i> | | Present | |

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University of Delaware Citizen Monitoring Program

| Water Body Tributary Site | Date | Time | Smpl Dpth | Name | Comment if ID uncertain | Abundance | MC/L |
|--|-----------|-------|--------------|--|----------------------------|-----------|--------|
| Rehoboth Bay | | | | | | | |
| <u>Guinea Creek</u> | | | | | | | |
| RB05: Mouth of Guinea Creek (Pot Nets Creekside) | | | | | | | |
| | 7/26/2010 | 11:43 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 11:43 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| RB06: Guinea Creek (Winding Creek Village) | | | | | | | |
| | 7/26/2010 | 8:45 | Surfc | <i>Chattonella subsalsa</i> (T) | | Present | |
| | 7/26/2010 | 8:45 | Surfc | <i>Fibrocapsa japonica</i> (T) | | Present | |
| | 7/26/2010 | 8:45 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Common | 0.275 |
| | 7/26/2010 | 8:45 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 8:45 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| <u>Love Creek</u> | | | | | | | |
| RB34: Love Creek at Rt 24 Bridge | | | | | | | |
| | 7/26/2010 | 9:14 | Surfc | <i>(Unknown) sp. (B*)</i> | 5-15 um Grn trdrp | Abundant | 27.700 |
| | 7/26/2010 | 9:14 | Surfc | <i>Chattonella cf. verruculosa</i> (T) | | Common | 0.100 |
| | 7/26/2010 | 9:14 | Surfc | <i>Cylindrotheca closterium</i> (B*) | | Abundant | 86.700 |
| | 7/26/2010 | 9:14 | Surfc | <i>Gyrodinium instriatum</i> (B) | | Many | 5.100 |
| | 7/26/2010 | 9:14 | Surfc | <i>Heterocapsa rotundata</i> (B) | | Common | 0.100 |
| | 7/26/2010 | 9:14 | Surfc | <i>Heterosigma akashiwo</i> (T) | | Present | |
| | 7/26/2010 | 9:14 | Surfc | <i>Karlodinium veneficum</i> (T) | | Present | |
| | 7/26/2010 | 9:14 | Surfc | <i>Kryptoperidinium foliaceum</i> (B) | | Present | |
| | 7/26/2010 | 9:14 | Surfc | <i>Prorocentrum minimum</i> (T) | | Present | |
| Wagamon's Pond | | | | | | | |
| BR44: Wagamon's Pond, Milton | | | | | | | |
| | 7/22/2010 | 8:30 | Surfc | <i>Aphanizomenon spp. (T)</i> | | Present | |
| | 7/22/2010 | 8:30 | Surfc | <i>Lyngbya (T)</i> | | Present | |
| | 7/28/2010 | 10:00 | Surfc | <i>Lyngbya (T)</i> | | Present | |
| | 7/28/2010 | 10:00 | Surfc | <i>Oscillatoria spp. (B)</i> | | Present | |

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