2019

Great South Bay, Long Island, New York Summer Phytoplankton Identification & Monitoring Program

CERCOM, Molloy University

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Center for Environmental Research and Coastal Oceans Monitoring

(CERCOM)

Molloy College

Great South Bay, Long Island, New York

Summer Phytoplankton Identification & Monitoring Program

Annual Inventory Report

2019

FINAL REPORT

Director; **Dr. John T. Tanacredi**

Scientific Research Technical Assistant; **Mr. Kyle F. Maurelli**

Administrative Coordinator; **Ms. Regina Gorney**

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2019

Student Intern

Participation:

Drew O'Connor	Earth & Environmental Studies	Molloy College
Thomas Nadraus	Biology	Molloy College
Brian Ford	Biology	Molloy College
Ryan Mehryari	Biology	Molloy College
Daman Kaur	Nursing	Molloy College
Nick Buscemi	Earth & Environmental Studies/ Philosophy	Boston University
Desmond Smith	Earth & Environmental Studies	Molloy College
Erin Tudryn	Earth & Environmental Studies/ ART	Molloy College
Caroline Kane	Earth & Environmental Studies	Molloy College
Mark Maurelli	Biomedical Engineering	Stevens Institute for Technology

<u>Phytoplankton Collection Methodologies:</u>

80 micron Plankton Tow Net with sample bottle attachment

Phytoplankton Protocol:

1. Gather Samples
2. Make one slide per sample
3. View slides using microscope connected with computer
4. Record findings using " Row # " and " Colum letter "
5. Record using " Tally's " per species found within sample
6. Capture anything interesting " Take Picture "
7. Duplicate pictures taken
8. Make sure measurement of species found is taken
9. Email Jennifer Maucher at Jennifer.maucher@noaa.gov , include pictures, questions and names of the species you "guess" you found.

If requested by NOAA, Jennifer will ask for a water sample from our findings.

Phytoplankton Monitoring Network

Harmful Algae Bloom Screening Data Entry

Navigate to https://coastalscience.noaa.gov/research/stressor-impacts-mitigation/pmn/data/submit-data-regions/ (using Google Chrome, it can be found on the bookmarks bar), and select Atlantic Region 1.

Our PMN ID is NY138 on the dropdown menu.

Figure 1. Sample overview: Totals

2019 Phytoplankton

Site	Coordinates	Weeks Tested	Total Species Found
Sexton	N 40.39.247 W 073.11.559	17	23
Ocean Beach	N 40.39.076 W 073.09.317	17	21
Ocean Bay Park	N 40.39.153 W 073.09.473	17	21
Sailor's Haven	N 40.39.696 W 073.06.479	17	22
Cherry Grove	N 40.40.241 W 073.04.785	17	22

Figure 2. Annual report on individual species found at each sample site in the Great South Bay 2019:

Species Detected (by Site)

Sexton	Ocean Beach	Ocean Bay Park	Sailor's Haven	Cherry Grove
C. centralis	C. centralis	Navicula	C. centralis	C. centralis
Lichmophora	C. granii	C. centralis	C. granii	C. granii
Actinoptychus	Nitzschia	C. granii	Nitzschia	Navicula
Gyrosigma	Grammatophora	Pleurosigma	Navicula	Nitzschia
C. granii	Navicula	Gyrosigma	Chaetoceros	Melosira
Navicula	Lichmophora	Actinoptychus	Lichmophora	Skeletonema
Grammatophora	Striatella	Grammatophora	Skeletonema	Paralia
Striatella	Paralia	Entomoneis	Striatella	Dinophysis
Paralia	Biddulphia	Triceratium	Grammatophora	Biddulphia
Nitzschia	Chaetoceros	Biddulphia	Gyrosigma	Chaetoceros
Biddulphia	Leptocylindrus	Striatella	Biddulphia	Striatella
Bacillaria	Bacillaria	Paralia	Melosira	Bacillaria
Chaetoceros	Bacteriastrum	Skeletonema	Pleurosigma	Thalassiosira
Cylindrotheca	Dinophysis	Lichmophora	Protoperidinium	P. lima
Thalassiosira	Triceratium	Bacillaria	Bacillaria	Lichmophora
Triceratium	Rhizosolenia	Chaetoceros	Pseudonitzschia	Pseudonitzschia
Melosira	Pleurosigma	Zoea	Triceratium	Grammatophora
Pleurosigma	Pseudonitzschia	Barnacle	Actinoptychus	Triceratium
Veliger	Zoea	Copepod	Zoea	Zoea
Zoea	Barnacle	Rotifer	Barnacle	Barnacle
Barnacle	Copepod	Veliger	Copepod	Copepod
Copepod			Veliger	Rotifer
Tintinnid				
23 Species	**21 Species**	**21 Species**	**22 Species**	**22 Species**

Figure 3. Annual report on individual species present in Great South Bay 2019, total:

Total Species Found: 33

1. C. centralis
2. Lichmophora
3. Actinoptychus
4. Gyrosigma
5. C. granii
6. Navicula
7. Grammatophora
8. Striatella
9. Paralia
10. Nitzschia
11. Biddulphia
12. Bacillaria
13. Chaetoceros
14. Cylindrotheca
15. Thalassiosira
16. Triceratium
17. Pleurosigma
18. Veliger
19. Zoea
20. Barnacle
21. Copepod
22. Tintinnid
23. Leptocylindrus
24. Bacteriastrum
25. Dinophysis
26. Rhizosolenia
27. Pseudonitzschia
28. Entomoneis
29. Skeletonema
30. Protoperidinium
31. P. lima
32. Rotifer
33. Melosira


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