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Long Island Horseshoe Crab Network Annual Inventory Report

CERCOM, Molloy University

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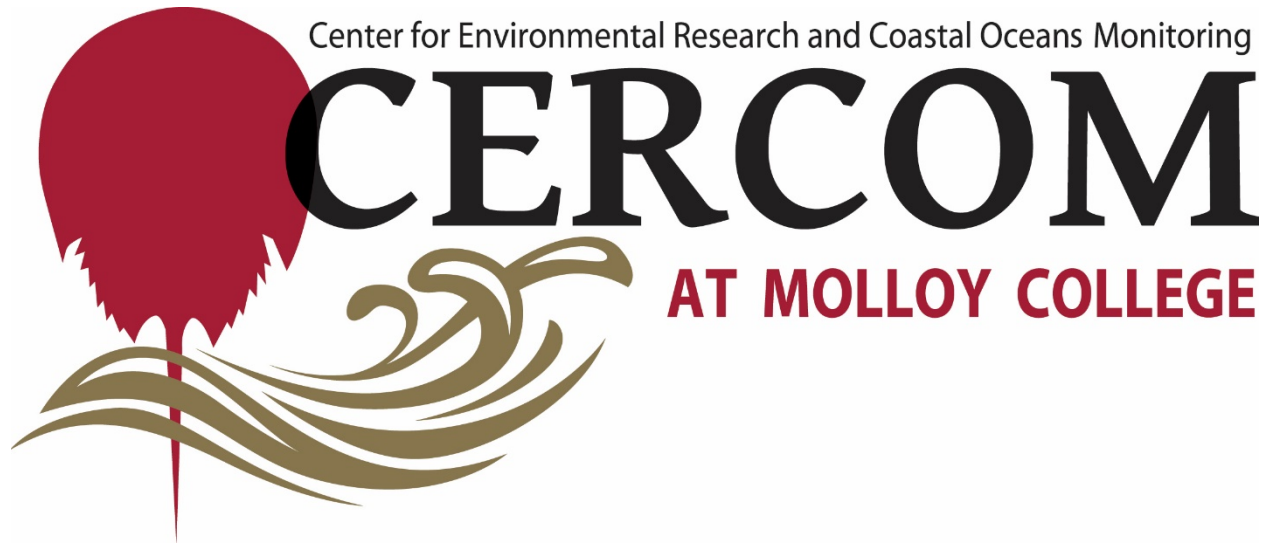
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Center for Environmental Research and Coastal Oceans Monitoring

(CERCOM)

Molloy College

Long Island Horseshoe Crab Network

Annual Inventory Report

2021

FINAL REPORT

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

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

Administrative Coordinator; **Ms. Regina Gorney**

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2021

Student Intern

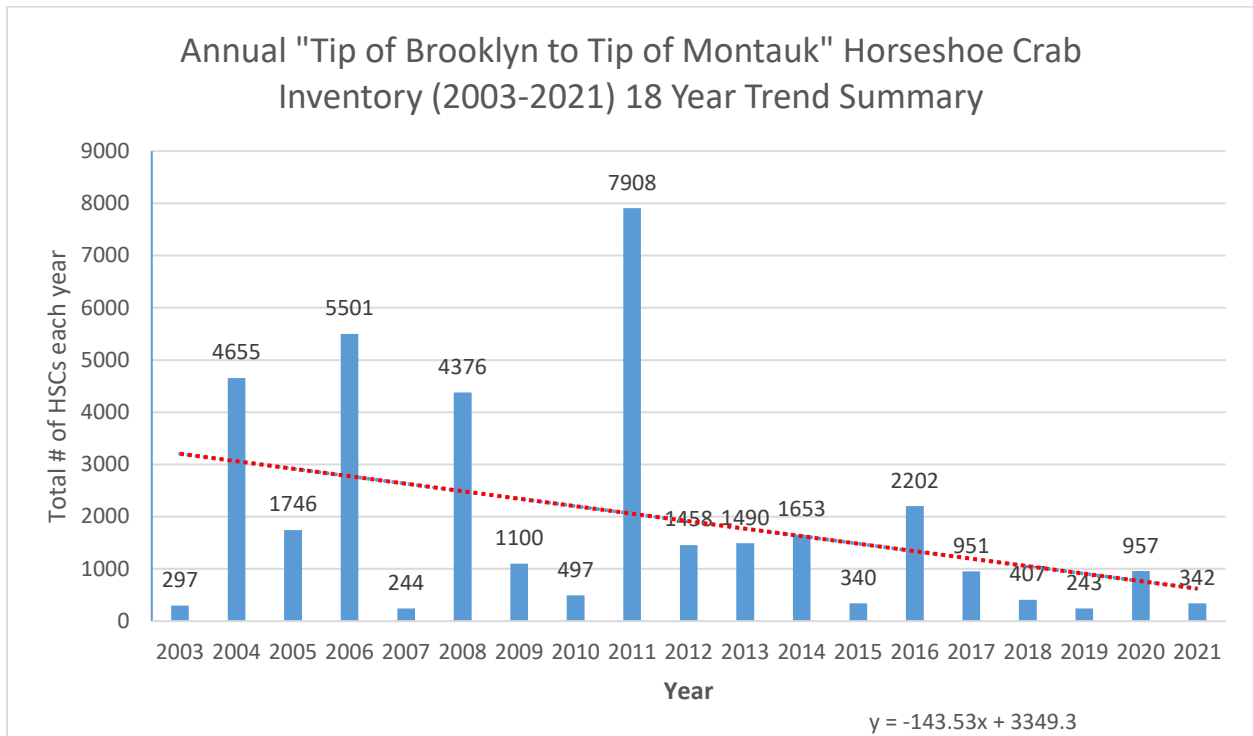
Participation:

Mackenzie Coan	Biology	Molloy College
Dakota Filigenzi	Education	Molloy College
Susannah Karp	Interdisciplinary Studies	Molloy College
Sarah Kolk	Pre-medicinal	Molloy College
Nina Oddo	Pre- medicinal	Molloy College
James Prince	Education	Molloy College

CERCOM monitors 115 beach locations from Brooklyn – Montauk during optimal *Limulus Polyphemus* breeding season. These beach surveys take place for approximately 15 weeks, ranging from May- August. These beach locations are marked specifically using GPS coordinates, to assure the same location is visited each year. Students and volunteers are required to attend a HSC Survey training orientation lead by CERCOM's research assistant, Mr. Kyle Maurelli. Surveying is done around tide and moon cycles (New/Full Moon). Each site takes about 1-2 hours and data is recorded along an approximate 1 mile distance. Walking along the water's edge the number of male and female HSCs are counted as well as the dead and or molted HSCs. This data is recorded and submitted to Molloy College's online HSC inventory form on the Molloy College website. CERCOM provides data for total observed HSC populations per site as well as whether or not HSC breeding has or is occurring at each beach location. Trends in breeding beach existence and overall Long Island populations is recorded annually.

Figure 1.

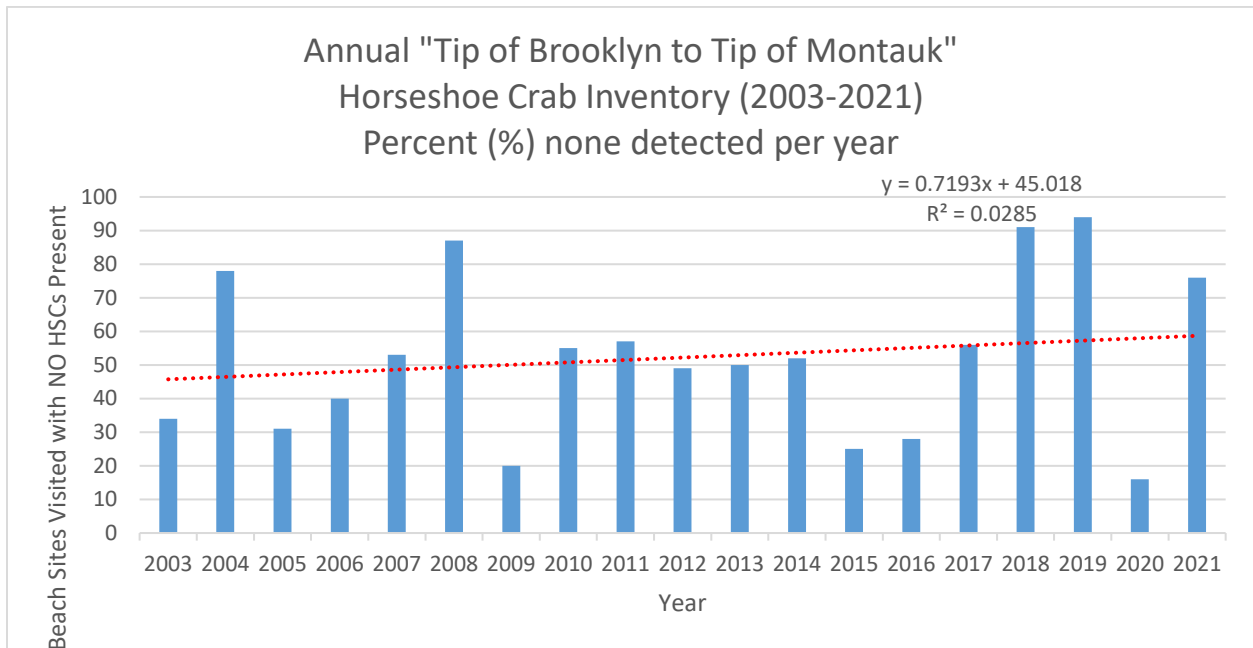
Annual totals with calculation of declining trend for 18 years of CERCOM data from 2003 – 2021.



*Raw Data available upon request, held in reserve at CERCOM.

Figure 2.

Annual totals with calculation of beach locations in with HSC absence
from 2003- 2021



*Raw Data available upon request, held in reserve at CERCOM.

Figure 3. Yes & No chart for individual CERCOM monitoring locations (HSC), to show if both male and female Horseshoe Crabs (HSCs) were present at each beach site for indication of breeding:

Column	2021	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004	2003
1 Stepping Stone Park	N	N/A	Y	N	N	N/A	N/A	Y	N	Y	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2 Plum Beach Point	Y	N/A	CLOSED	CLOSED	Y	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y	Y	N/A	N/A	N	Y	N
3 Half Moon Beach	N/A	N/A	CLOSED	N	Y	Y	Y	Y	N	Y	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4 Manorhaven Beach Park	N	N/A	Y	Y	Y	N	N/A	N/A	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5 Prospect Point	N/A	N/A	CLOSED	Y	Y	Y	Y	Y	Y	Y	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6 Leeds Pond Museum Beach	N	N/A	N	CLOSED	N/A	N	Y	Y	N	N	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7 Sands Point Preserve	N/A	N/A	CLOSED	N	N	N	N	N	N	N	N/A	N/A	N	N/A	N	N	N	N	Y
8 North Hempstead Beach Park	N	N/A	Y	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9 Dockman Beach	N	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10 Theodore Roosevelt Memorial Park	N	N/A	N	N	Y	Y	Y	Y	Y	Y	N	Y	N/A	Y	N/A	N/A	N/A	N/A	N/A
11 Center Island Beach (Shore)	N	N/A	N	N	N	Y	N/A	N	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A
Center Island Beach (Bay)	N	N/A	Y	N	N	Y	N/A	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A
12 Sagamore Hill Historic Site	N	N/A	N	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13 Lloyd Neck Bath Club	N	N/A	Y	N	Y	N	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N	N	Y	N
14 Bungtown Rd, Cold Spring Harbor	N	N/A	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
15 Caumsett State Park	N	N/A	Y	N	Y	N/A	N/A	N/A	N	N	N	N/A	N/A	N/A	N/A	N	N	Y	N
16 Cold Spring Harbor Lab	N/A	N/A	N	N	Y	N/A	N/A	N/A	N/A	N	N	N/A	N/A	N/A	Y	N	N	Y	Y
17 Cold Spring Harbor Beach Club	N/A	N/A	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N	N/A	N/A	Y	N	N	Y	Y
18 Gold Star Beach Club	N	N/A	N	N	Y	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19 Target Rock National Wildlife Refuge	Y	N/A	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
20 Bay Hills Beach, Huntington	N	N/A	N	N	N	Y	N	N	N/A	N/A	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21 Crescent Beach Town Park	N	N/A	N	N	N	N	N	Y	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
22 Hobart Beach Park	Y	N/A	Y	N	Y	Y	Y	N	N	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
23 Fleets Cove Beach Park	N	Y	N	Y	N	N	Y	N	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
24 Centepart Beach Park	Y	Y	N	Y	N	N	Y	N	N	Y	N	N/A	Y	Y	N/A	N	N	Y	N
25 Asharoken Beach Park	Y	N/A	N	N	Y	N	Y	Y	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
26 Kirschbaum Park	CLOSED	N/A	N	CLOSED	N/A	N	N/A	N/A	N/A	N/A	N	N/A	N/A	N/A	N	N	N	Y	N
27 Short Beach, Masegoogaug	N	Y	N	Y	N	Y	N/A	Y	N/A	N/A	N/A	N/A	N	Y	Y	Y	Y	Y	N
28 Long Beach Town Park (Shore)	N	N	N	N	Y	N/A	N/A	N/A	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Long Beach Town Park (Bay)	Y	Y	N	N	N/A	Y	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29 Cortwood Park, Stony Brook Harbor	Y	N	N	N	Y	N/A	N/A	N	N	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
30 West Meadow Wetlands Reserve	Y	N/A	N	Y	Y	Y	N/A	N/A	N	N	N/A	N/A	N	N/A	N	N/A	N	Y	N
31 Walnut Beach, Walnut Ave	N	N/A	Y	N	Y	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32 Pogonip Beach, Chestnut Ave	N	N/A	N	N	Y	Y	N/A	N/A	N	N	Y	Y	Y	N/A	Y	N	Y	Y	N
33 Mt Sinai Fishing Spot	Y	N/A	Y	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34 Mt Sinai Cedar Town Beach	N	N	N	N	N	Y	N	N/A	Y	N	N	Y	Y	N/A	Y	Y	N	Y	N

*Raw Data available upon request, held in reserve at CERCOM.

