



2017

Hampton Harbor Clam Data: Density, Green Crab Abundance and Neoplasia Incidence

Normandeau Associates

NextEra Energy

Follow this and additional works at: <https://scholars.unh.edu/prep>

Recommended Citation

Normandeau Associates and NextEra Energy, "Hampton Harbor Clam Data: Density, Green Crab Abundance and Neoplasia Incidence" (2017). *PREP Reports & Publications*. 412.
<https://scholars.unh.edu/prep/412>

This Report is brought to you for free and open access by the Institute for the Study of Earth, Oceans, and Space (EOS) at University of New Hampshire Scholars' Repository. It has been accepted for inclusion in PREP Reports & Publications by an authorized administrator of University of New Hampshire Scholars' Repository. For more information, please contact Scholarly.Communication@unh.edu.

Hampton Harbor Clam Data: Density, Green Crab Abundance and Neoplasia Incidence

Showing Data Through 2017

Data Courtesy of Normandeau Associates, with support from NextEra Energy

SHL3

Arithmetic Mean Adult clam density (>50mm) (#/m²)

Year	CLM01	CLM02	CLM04	Source
	Common Island	Confluence Fla	Middle Ground	
1967				
1968				
1969				
1970				
1971	22.6	40.9	30.1	Seabrook Station
1972	35.5	15.1	24.8	Seabrook Station
1973	14.0	11.8	6.5	Seabrook Station
1974	22.6	14.0	18.3	Seabrook Station
1975	11.8	5.4	4.3	Seabrook Station
1976	3.2	1.1	1.1	Seabrook Station
1977	2.2	1.1	1.1	Seabrook Station
1978	1.1	2.2	1.1	Seabrook Station
1979	1.1	2.2	6.5	Seabrook Station
1980	18.3	23.7	34.4	Seabrook Station
1981	39.8	9.7	24.8	Seabrook Station
1982	30.1	9.7	23.7	Seabrook Station
1983	45.2	58.1	10.8	Seabrook Station
1984	36.6	18.3	9.7	Seabrook Station
1985	17.2	5.4	6.5	Seabrook Station
1986	7.5	3.2	2.2	Seabrook Station
1987	2.2	1.1	2.2	Seabrook Station
1988	2.2	1.1	4.3	Seabrook Station
1989	4.3	1.1	7.5	Seabrook Station
1990	8.6	1.1	27.9	Seabrook Station
1991	13.1	2.4	51.9	Seabrook Station
1992	18.1	5.8	47.2	Seabrook Station
1993	17.4	3.2	30.9	Seabrook Station
1994	13.7	4.2	34.1	Seabrook Station
1995	12.6	16.0	37.1	Seabrook Station
1996	28.5	38.8	46.3	Seabrook Station
1997	59.9	19.9	72.9	Seabrook Station
1998	21.3	10.0	22.5	Seabrook Station
1999	20.1	8.4	14.8	Seabrook Station
2000	9.8	18.1	7.7	Seabrook Station
2001	5.2	9.6	6.0	Seabrook Station
2002	3.0	5.3	7.5	Seabrook Station
2003	3.0	4.0	7.0	Seabrook Station
2004	5.1	2.7	3.9	Seabrook Station
2005	3.7	3.2	6.0	Seabrook Station
2006	15.9	6.6	9.0	Seabrook Station
2007	14.5	3.6	9.3	Seabrook Station

2008	12.3	4.9	4.9	Seabrook Station
2009	6.0	7.6	3.6	Seabrook Station
2010	6.6	2.6	5.1	Seabrook Station
2011	4.3	4.9	5.4	Seabrook Station
2012	2.3	2.4	2.4	Seabrook Station
2013	4.5	3.4	3.3	Seabrook Station
2014	3.1	0.8	1.5	Seabrook Station
2015	5.7	2.0	0.8	Seabrook Station
2016	18.9	2.6	4.8	Seabrook Station
2017	23.6	3.7	18.0	Seabrook Station

Arithmetic Mean Juvenile clam density (26-50mm) (#/m2)

Year	CLM01 Common Island	CLM02 Confluence Fla	CLM04 Middle Ground	Source
1967				
1968				
1969				
1970				
1971	73.2	51.7	189.4	Seabrook Station
1972	87.2	23.7	114.1	Seabrook Station
1973	26.9	40.9	40.9	Seabrook Station
1974	39.8	14.0	30.1	Seabrook Station
1975	8.6	0.0	3.2	Seabrook Station
1976	1.1	1.1	1.1	Seabrook Station
1977	1.1	0.0	1.1	Seabrook Station
1978	15.1	42.0	180.8	Seabrook Station
1979	327.2	37.7	390.7	Seabrook Station
1980	775.0	42.0	508.0	Seabrook Station
1981	481.1	10.8	531.7	Seabrook Station
1982	141.0	2.2	132.4	Seabrook Station
1983	227.1	47.4	30.1	Seabrook Station
1984	66.7	9.7	10.8	Seabrook Station
1985	15.1	1.1	3.2	Seabrook Station
1986	2.2	1.1	2.2	Seabrook Station
1987	1.1	1.1	3.2	Seabrook Station
1988	3.2	1.1	9.7	Seabrook Station
1989	8.6	1.1	11.8	Seabrook Station
1990	5.4	1.1	33.4	Seabrook Station
1991	16.9	2.5	22.3	Seabrook Station
1992	8.3	1.1	19.1	Seabrook Station
1993	3.3	0.3	5.5	Seabrook Station
1994	21.6	40.8	33.6	Seabrook Station
1995	96.5	34.2	46.0	Seabrook Station
1996	39.1	14.5	38.6	Seabrook Station
1997	9.9	0.9	36.0	Seabrook Station
1998	1.2	0.1	1.4	Seabrook Station
1999	0.5	0.1	1.2	Seabrook Station
2000	1.5	0.8	1.5	Seabrook Station
2001	0.0	0.3	1.0	Seabrook Station
2002	1.3	0.4	1.6	Seabrook Station
2003	1.6	0.4	3.0	Seabrook Station
2004	1.8	0.5	3.1	Seabrook Station

2005	3.9	1.2	2.2	Seabrook Station
2006	6.7	0.6	5.3	Seabrook Station
2007	1.8	0.5	2.5	Seabrook Station
2008	0.5	0.0	0.9	Seabrook Station
2009	0.6	0.11	0.8	Seabrook Station
2010	0.11	0.0	0.2	Seabrook Station
2011	0.9	0.2	1.0	Seabrook Station
2012	0.4	0.1	0.4	Seabrook Station
2013	0.1	0.4	0.4	Seabrook Station
2014	0.6	0.4	0.5	Seabrook Station
2015	9.5	0.3	0.5	Seabrook Station
2016	6.8	0.2	9.3	Seabrook Station
2017	1.9	0.2	84.3	Seabrook Station

SHL8

Arithmetic Mean Spat Density (1-25 mm shell height) (#/m2)

Year	CLM01	CLM02	CLM04	Source
	Common Island	Confluence Fla	Middle Ground	
1967				
1968				
1969				
1970				
1971	517	979	1,141	Seabrook Station
1972	1,184	1,636	1,485	Seabrook Station
1973	474	1,464	194	Seabrook Station
1974	22	0	32	Seabrook Station
1975	334	54	420	Seabrook Station
1976	6,243	2,131	5,113	Seabrook Station
1977	4,704	527	2,637	Seabrook Station
1978	2,250	86	1,851	Seabrook Station
1979	431	334	1,044	Seabrook Station
1980	969	2,723	1,033	Seabrook Station
1981	484	5,586	2,540	Seabrook Station
1982	65	75	258	Seabrook Station
1983	226	205	484	Seabrook Station
1984	614	269	883	Seabrook Station
1985	54	226	172	Seabrook Station
1986	97	97	129	Seabrook Station
1987	75	140	129	Seabrook Station
1988	32	22	65	Seabrook Station
1989	118	269	377	Seabrook Station
1990	1,227	431	1,044	Seabrook Station
1991	62	86	38	Seabrook Station
1992	59	41	70	Seabrook Station
1993	298	542	392	Seabrook Station
1994	956	235	275	Seabrook Station
1995	36	200	25	Seabrook Station
1996	279	289	304	Seabrook Station
1997	267	359	123	Seabrook Station
1998	336	153	171	Seabrook Station
1999	605	1,016	654	Seabrook Station
2000	514	261	291	Seabrook Station

2001	271	225	282	Seabrook Station
2002	253	201	99	Seabrook Station
2003	117	41	85	Seabrook Station
2004	231	98	68	Seabrook Station
2005	640	223	212	Seabrook Station
2006	45	139	27	Seabrook Station
2007	83	53	58	Seabrook Station
2008	1,591	568	1,148	Seabrook Station
2009	509	285	418	Seabrook Station
2010	714	554	1,276	Seabrook Station
2011	1,523	1,274	2,411	Seabrook Station
2012	1,279	601	765	Seabrook Station
2013	1,079	607	257	Seabrook Station
2014	4,449	3,780	694	Seabrook Station
2015	10,206	6,465	2,020	Seabrook Station
2016	1,050	1,749	1,114	Seabrook Station
2017	1,905	1,321	751	Seabrook Station

Green Crab CPUE in Hampton Seabrook Harbor as Monitored by Seabrook Station

Year	Green Crab Abundance (CPUE)
1978	7.2
1979	22.1
1980	53.1
1981	39.4
1982	56.1
1983	117.3
1984	123.9
1985	69.4
1986	113.5
1987	68.9
1988	88.2
1989	82.5
1990	44
1991	120.1
1992	146.5
1993	81.4
1994	30.5
1995	132.4
1996	135.4
1997	84.8
1998	88.9
1999	57.9
2000	83.1
2001	91.8
2002	58.6
2003	56.3
2004	50.2
2005	59.792
2006	93.438
2007	24
2008	43.625

2009	64.292
2010	49.667
2011	61.563
2012	51.104
2013	39.021
2014	35.229
2015	23.604
2016	42.396
2017	71.563

The neoplasia data presents the percentage of clams on each flat by year that are ir

Averages by flat					
YEAR	FLAT 1	FLAT 2	FLAT 3	FLAT 4	
2002	79	84	73	79	79
2003	50	50	30	54	54
2004	53	64	59	43	43
2005	46	51	43	49	49
2006	54	63	53	56	56
2007	29	56	52	67	67
2008	80	76	77	74	74
2009	49	53	64	56	56
2010	58	65	71	58	58
2011	69	61	59	91	91
2012	55	83	69	78	78
2013	81	86	76	78	78
2014	64	54	69	72	72
2015	100	81	97	100	100
2016	68	75	60	87	87
2017	68	53	58	61	61