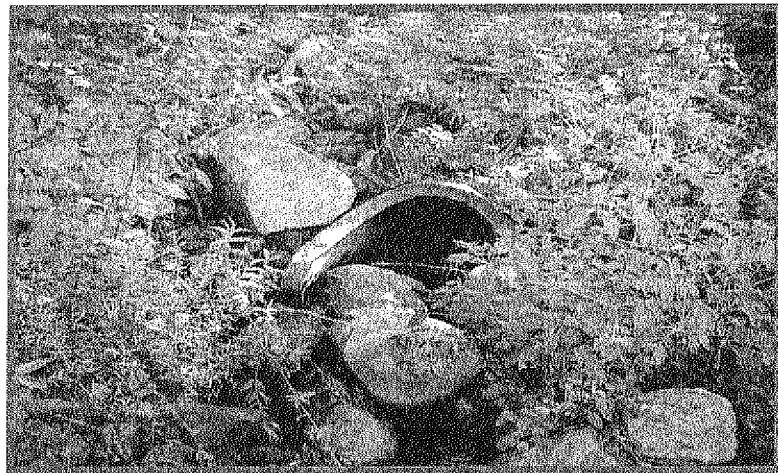


GBCW Support for Shellfish Activities 2003



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Cain's Brook Sampling Site



UNIVERSITY of NEW HAMPSHIRE
COOPERATIVE EXTENSION

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Contents

Introduction 1

Goals and Objectives 1

Methods and Accomplishments 2

Recommendations 3

Appendix A- Volunteer Hours and Match Summary

Introduction

The Great Bay Coast Watch (GBCW) is a volunteer estuarine monitoring program established in 1989 that includes teachers, students, and local citizens with a diversity of backgrounds. Volunteers participate in a variety of training programs that enable them to monitor water quality parameters in Great Bay and coastal areas, sample for marine phytoplankton blooms and conduct shoreline surveys and habitat evaluations.

Since 1997 the New Hampshire Estuaries Project (NHEP) has relied on the ability of GBCW to recruit and train volunteers to assist with the implementation of its plan to protect, restore and manage the states estuarine systems. This year GBCW again participated in plan implementation by assisting the NH Department of Environmental Services (NHDES) Shellfish Program. Volunteers completed a variety of work tasks, including mussel collection, sample collection and transport and general field assistance.

Goals and Objectives

The purpose of this project was to assist NHDES/Shellfish Program with its management plan activities. GBCW assisted with a variety of work tasks. Specific goals were:

- Recruit, train and organize volunteers for project tasks
- Sample collection and transportation activities for Star Island.
- Sampling site documentation and sample transportation for Little Harbor.
- Wet weather sampling, site documentation and sample transportation,
- Provide miscellaneous field assistance as needed
- Ambient sampling and transportation of samples for the DES Shellfish Program
- Data quality assurance to the DES Shellfish Program
- Shellfish meat sampling and transportation for the DES Shellfish Program

Methods and Accomplishments

Sample Collection and Transportation for Star Island

During this grant, UNH Great Bay Coast Watch assisted NHDES Shellfish with maintaining a Paralytic Shellfish Poisoning (PSP) monitoring station at Star Island, Isles of Shoals. Volunteers collected mussels from Hampton Harbor, placed them in mesh bags then transported them via the Isles of Shoals Steamship Line Ferry to Star Island to hang from the Star Island Corporation docks. Volunteers then returned weekly, collected one bag of mussels and transport the mussels to the state lab in Concord for PSP testing. Volunteers collected and bagged mussels in Hampton Harbor four times, traveled to Star Island to service the PSP sampling station thirteen times and made eighteen trips to Concord to deliver mussels to the NHDHHS Laboratory for testing.

An additional activity conducted by volunteers, which is not supported by this grant, is public education and outreach. On return trips from the Isles of Shoals, trained volunteers would process phytoplankton samples collected from Star Island waters. Interested passengers onboard the ferry were frequently engaged in conversations about coastal issues, and encouraged to examine plankton samples under a microscope and assist with water quality tests.

Wet weather and ambient water quality sampling:

GBCW supplied trained volunteers and NHDES Shellfish Program conducted training on site locations, equipment use, sampling methods and data collection and sample transport.

NHDES notified GBCW of potential sampling days and GBCW subsequently organized volunteer teams for sampling. Sample dates included both pre-scheduled events as well as storm sampling to assist NHDES with storm events, GBCW developed a list of trained volunteers that could be called for unscheduled sampling events. Volunteers assisted with sampling storm water in the *Cains Brook* study area four times. Volunteers also assisted with ambient sampling in Little Bay, Hampton Harbor and Great Bay. Samples were transported to the

DES lab in Concord. All data collected by GBCW volunteers was turned over to NHDES after collection.

Samplings, site documentation, and sample transportation for Little Harbor

GBCW assistance was not requested for this task.

Wet weather sampling, site documentation, and sample transportation

This was postponed although potential volunteers were trained by GBCW during the *Dover Storm Water* training series.

Miscellaneous field assistance

GBCW volunteers assisted with transport, ambient sampling, storm water collection and tidal studies.

Data quality assurance assistance to the DES Shellfish Program

GBCW volunteer Bill Wetzel assisted with data QA on two occasions during the grant period.

Shellfish meat sampling and transportation for the DES Shellfish Program

GBCW volunteers were recruited but never requested to assist with clam digging. They did however transport shellfish samples and assist with the Gulf Watch Mussel Program measuring and shucking mussels.

Discussion and Recommendations

Great Bay Coast Watch continues to provide a valuable trained and flexible workforce of volunteers who can be accessed to accommodate unscheduled sampling during storm events, carry out sample delivery and assist with data verification. GBCW involvement with NHDES Shellfish Program continues to assist the program with significant data collection and public outreach.

- Continue to involve GBCW volunteers in estuary projects – GBCW is skilled at recruiting and training volunteer teams and these projects build a local citizenry educated on coastal issues.
- Continue to allow for project flexibility to accommodate changing DES Shellfish Program needs that arise from time to time. For example,

weather conditions that make it impossible to complete sampling plans or adjustments in project focus.

- Continue to involve GBCW in projects that involve public outreach and education in support of NHDES program goals.
- Continue to allow NHDES Shellfish staff to share the outcome of findings supported by GBCW volunteer involvement.

13GO54 New Hampshire Estuaries Project Shellfish Support				
First Quarter Report 09/30/03				
Ambient Sampling and Delivery				
Date	Type	Volunteers	Time (hours)	Miles
5/7/2003	sample delivery	Bill Macklin	3	109
6/18/2003	Star Island mussel collection	E Hutchins	4	40
6/30/2003	Star Island mussel collection	W Fries, A Saulnier	14	86
		Subtotals	21	235
		Totals	21	235
		Match \$\$	\$315.00	\$84.60
		Total match to date	report 1	\$399.60
			report 2	
			report 3	

13G054 New Hampshire Estuaries Project Shellfish Support				
Second Quarter Report 09/30/03				
Ambient Sampling and Delivery				
Date	Type	Volunteers	Time (hours)	Miles
7/1/2003	mussel transport	Barbara Elkerton	2.5	90
7/7/2003	mussel collection	Ann Antaya	1	10
7/8/2003	mussel transport	Liz Sizemore	3.5	100
7/16/2003	mussel transport	Wally Fries	3	96
7/22/2003	mussel transport	Liz Sizemore	3.5	114
7/28/2003	sample transport	Nate Hazen	3.5	120
7/29/2003	mussel transport	Wally Fries	2	50
8/4/2003	mussel transport	Liz Sizemore	3.5	100
8/18/2003	sample transport	Nate Hazen	3	120
8/19/2003	mussel transport	Liz Sizemore	3.5	100
8/21/2003	collection water samples and transport	Bill Wetzel	6	100
8/26/2003	mussel transport	Liz Sizemore	3.5	114
9/2/2003	mussel transport	Steve Cooper	3	60
9/5/2003	mussel collection	Matt Dolan	2	10
9/6/2003	Deliver mussels to Star Island	Wally Fries, Andrea Lindermeyer	14	70
9/10/2003	Hampton Harbor water sampling	Bill Wetzel	4	55
9/15/2003	mussel transport	Barbara Elkerton	3	90
9/19/2003	sampling support	Nate Hazen	4.5	14
9/18/2003	Little Bay water sampling	Bill Macklin	2.5	30
9/23/2003	mussel transport	Liz Sizemore	3.5	114
9/23/2003	Great Bay water sampling	Bill Macklin	4	30
9/30/2003	mussel transport	Liz Sizemore	3.5	114
		Subtotals	82.5	1701
			Time (hours)	Miles
07/08/03	Ann Antaya, W Fries	Mussel retrieval Star Island	14	86
07/16/03	L Martin, W Fries	Mussel retrieval Star Island	13.5	92
07/22/03	G Raub	Mussel retrieval Star Island	6.5	30
07/29/03	W Fries, E Hutchins	Mussel retrieval Star Island	12	175
08/04/03	L Martin, D Kilcoyne	Mussel retrieval Star Island	10	75
08/14/03	Staff (Dolan)	Mussel retrieval Star Island	0	0
08/19/03	D Bellantone, Evan Bellantone	Mussel retrieval Star Island	10	30
08/26/03	Claire, Andrew, Ann Antaya	Mussel retrieval Star Island	12	48
09/02/03	E Hutchins	Mussel retrieval Star Island	4	20
09/15/03	L Coe, D Chamberland	Mussel retrieval Star Island	8.5	60
		Subtotals	90.5	616
			Time (hours)	Miles
		Totals	173	2317
		Match \$\$	\$2,595.00	\$834.12
		Total	\$3,429.12	
			report 1	\$ 399.60
			report 2	\$3,429.12
			report 3	
		Total match to date		\$3,828.72

13GO54 New Hampshire Estuaries Project Shellfish Support				
Third Quarter Report 12/31/03				
Date	Type	Volunteers	Time (Hours)	Miles
10/9/2003	Meeting at Portsmouth Office/Matt Wood	Matt O'Boyle	3	20
		Kaori Tsukui	3	0
		Karen Diamond	3	40
10/2/2003	Gulf Watch/Mussel Shucking	Kaori Tsukui	4	10
		Clif Horrigan	4.5	25
		Karen Diamond	4.5	31
10/3/2003	Gulf Watch/Mussel Shucking	Karen Diamond	4.5	31
10/9/2003	Water Transport	Liz Sizemore	3.25	117
10/14/2003	Seabrook Cains Brook Sampling	Karen Diamond	4.5	78
		Matt O'Boyle	3.15	50
		Kaori Tsukui	4	
		Linda Coe	1.15	20
		transport/ Liz Sizemore	3.5	114
10/14/2003	Preparation for Newington Presentation	Nate Hazen	2	0
10/14/2003	Transport	Liz Sizemore	3.25	112
10/15/2003	Talk in Newington	Nate Hazen	4.5	16
10/16/2004	Research/ S Berwick	Nate Hazen	3	42
10/16/2003	Seabrook Cains Brook Sampling	transport / Steve Cooper	4	84
		Matt O'Boyle	4.5	50
		Karen Diamond	5	78
		Linda Coe	2.5	20
10/20/2004	Great Bay Stewards Meeting	Nate Hazen	3	22
10/20/2003	Mussel Transport	Barbara Elkerton	3	110
10/28/2003	Pick up cooler/Concord	Liz Sizemore	3	112
10/29/2003	Seabrook Cains Brook Sampling	Karen Diamond	6	68
		Sue Foote	3.5	20
		Candace Dolan	0	0
		transport / Steve Cooper	4	84
10/20/2003	Mussel Transport	Barbara Elkerton	3	110
10/20/2003	NHEP Conference	Karen Diamond	9	47
10/21/2003		Karen Diamond	9	47
10/31/2003	QA with Chris Nash	Bill Wetzel	3	16
11/6/2003	Transport from Pease to Concord	Carol Currier	3	84
11/6/2003		Bill Macklin- return coolers to Pease	1	10
11/8/2003	Rivers and Lakes Conference	Karen Diamond	10.5	90
11/10/2003	Transport from Pease to Concord	Bill Macklin	3	120
11/12/2003	Water Sampling with Matt Wood	Bill Wetzel	3.5	40
		Bill Macklin	2	38
11/17/2003	Sampling with Chris Nash	transport/Matt O'Boyle	6	125
		Karen Diamond	5	69
11/18/2003	Seabrook Cains Brook Sampling	Kaori Tsukui	3.5	0
12/4/2003	Hampton Harbor Sampling	Karen Diamond	7	41
		transport/Matt O'Boyle	6	125
			171.8	2316
	Dover Storm Drain			
10/4/2003	Apple Harvest Festival	Bev Brinkman	2.00	5
10/4/2003	Apple Harvest Festival	Erin Pender	2.50	5
10/4/2003	Apple Harvest Festival	Janet Lucco	2.00	10
10/4/2003	Apple Harvest Festival	Matt O'Boyle	8.00	12
10/4/2003	Apple Harvest Festival	Pam Samson	6.00	15
10/8/2003	Clerical	Barb Trow	0.50	0
10/8/2003	Clerical	Karen Diamond	1.00	0
10/8/2003	Clerical	Nate Hazen	0.50	0
10/11/2003	Clerical	Karen Diamond	0.50	21
10/15/2003	Clerical	Karen Diamond	1.00	0
10/16/2003	Clerical	Karen Diamond	3.50	21
			371.10	4721
		Total	\$5,566.50	\$1,699.56
			(See next Page)	

13GO54 New Hampshire Estuaries Project Shellfish Support			
Third Quarter Report 12/31/03			
	report 1	\$ 399.60	
	report 2	\$3,429.12	
	report 3	\$7,266.06	
	Final	\$11,094.78	