

Name_____

period____

SEINE Project: What's it all mean? Investigating Near Shore Ecosystems in Long Island Sound

Introduction

The SEINE Project is a grant program funded by Connecticut Department of Environmental Protection- license plate fund. The goal of the SEINE Project is to foster awareness of, and stewardship for, near-shore ecosystems. These areas are considered nursery grounds for commercially important fish and invertebrates and have been in decline, threatened by drainage, development, and pollution. As a result, these areas are the focus of many management and conservation programs.

By observing, identifying, measuring and analyzing patterns of fish populations, we can be a part of monitoring the health of Long Island Sound right in our backyard and become stewards of the Sound.

Your Task

Working with a partner, investigate seasonal and spatial variation and trends of fish populations at various sites in Long Island Sound. Use archived data gathered at four locations along LIS (White Sands Beach, Bluff Point State Park, Hammonasset State Park, and Morris Cove) to complete this activity. You may also need to search links to other websites for information on possible factors that influence organisms in LIS.

Dates of data: LSWS- 8/20/2007, 9/24/2008
 LSBP- 9/19/2007
 LSHB-8/20/2007
 LSMC-8/23/2005

For archived data please go to <http://www.seine.domsplace.com/>

For current data go to <http://www.region18.org> and click on D. Kelley webpage- SEINE Project.

Photo of White Sands Beach go to:

http://www.plocktau.com/temp/beachhouse/pages/page_3.html

Map of Bluff Point State Park go to:

<http://www.ct.gov/dep/lib/dep/stateparks/maps/bluffpoint.pdf>

Map of Hammonasset State Park go to:

<http://www.ct.gov/dep/lib/dep/stateparks/maps/hammapcolor.pdf>

Part 1- Seasonal variation/ trends at LSWS: Review data for a given date and complete questions. Share responses with the class.

Part 2- Summary of seasonal trends: Complete questions.

Part 3- Spatial variation/ trends along LIS: Review data for given location, complete questions and share responses with class.

Part 4- Summary of spatial trends: Complete questions.

Part 1: Are there seasonal trends?

DATE of data: _____

SITE #1

1. Use the photo of White Sands beach and your experience, describe the physical location and makeup of Site #1:

2. Complete table below:

Water temperature (C)	
Dissolved Oxygen (mg/L)	
% Saturation of Dissolved Oxygen	
Salinity (ppt)	

3. For the fish species present:

a. How many different species were collected?

b. How many individuals of each species were collected?

c. Describe the diversity of fish at this site.

SITE #2

4. Use the photo of White Sands beach and your experience, describe the physical location and makeup of Site #2:

5. Complete table below:

Water temperature (C)	
Dissolved Oxygen (mg/L)	
% Saturation of Dissolved Oxygen	
Salinity (ppt)	

6. For the fish species present:

- a. How many different species were collected?

- b. How many individuals of each species were collected?

- c. Describe the diversity of fish at this site.

SITE #3

7. Use the photo of White Sands beach and your experience, describe the physical location and makeup of Site #3:

8. Complete table below:

Water temperature (C)	
Dissolved Oxygen (mg/L)	
% Saturation of Dissolved Oxygen	
Salinity (ppt)	

9. For the fish species present:
 - a. How many different species were collected?

 - b. How many individuals of each species were collected?

 - c. Describe the diversity of fish at this site.

Summary

How do these three sites compare physically? Explain.

How do these sites compare in fish populations? Explain.

What factors influence water at the each of these sites?

Part 2: Summary of Seasonal Trends

1. What are the similarities in data from one season to another? Explain.
2. What are there differences in data from one season to another? Explain.
3. Are there seasonal trends at White Sands Beach? Explain. Include a discussion of similarities and differences, as well as factors that might influence water and fish populations during different seasons.

Part 3: Spatial Variation/ Trends along LIS

LOCATION: _____

DATE of data: _____

1. Use the photo of Seining sites and LIS, describe the physical location and makeup of your location:

2. Complete table below using summary information provided:

Water temperature (C)	
Dissolved Oxygen (mg/L)	
% Saturation of Dissolved Oxygen	
Salinity (ppt)	

3. For the fish species present:

a. How many different species were collected?

b. How many individuals of each species were collected?

c. Describe the diversity of fish at this site.

