

# Field Guide for New Haven Harbor Area

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## Introduction

- Field guides are an important tool to have on hand when going into the field as they provide images and background information on various species that are native to the area.
- The objective for this project was to create a helpful guide that allows students to easily identify species while they are working in the field.

## Materials and Methods

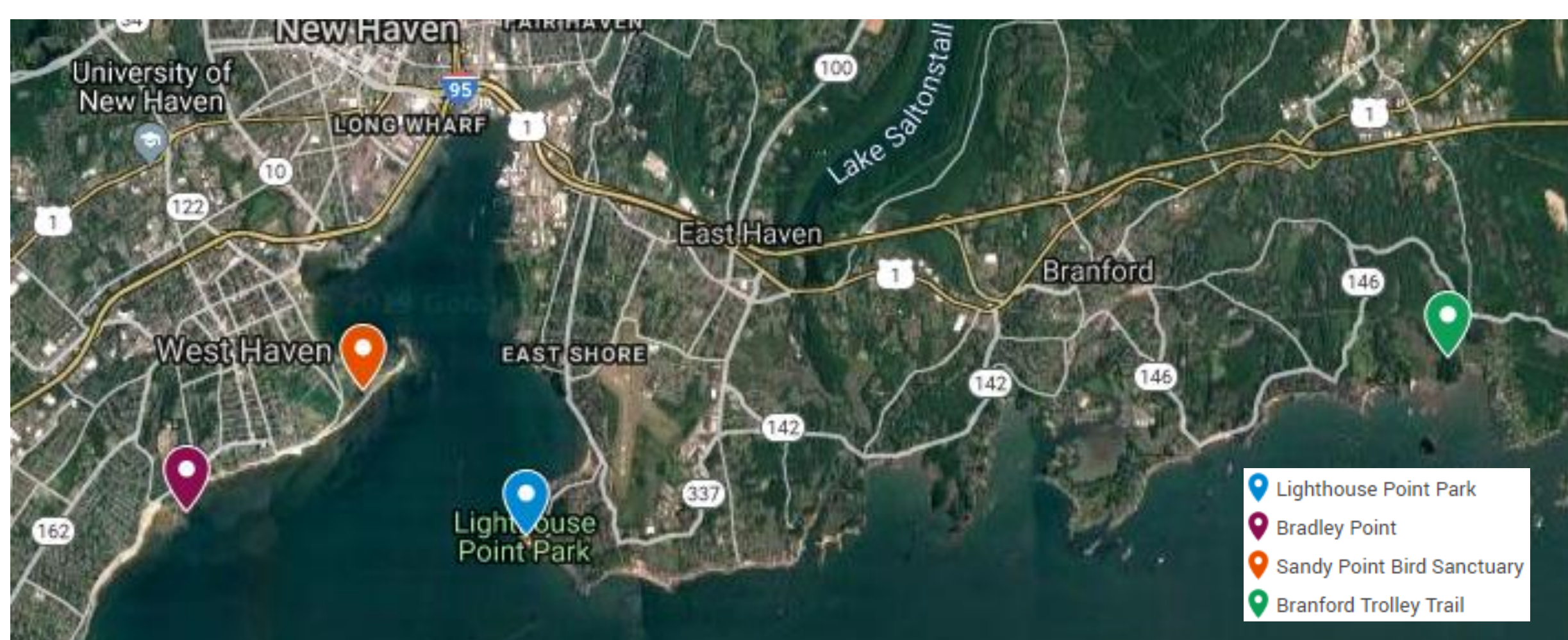


Figure 1: Map of the sites visited on the New Haven Harbor

- Four sites were visited: Lighthouse Point, Bradley Point, Sandy Point, and Banca saltmarsh. (Fig. 1)
- Shovels were used to collect burrowing animals. Seine nets were used to collect fish.
- Using a Nikon 3500 camera, photos of the organisms were taken on site. Some species were photographed in the lab for more detailed photos.
- To identify species, Marine Animals of Southern New England and New York, (Weiss, 1995) was used.
- The World Register of Marine Species (WORMS) website was used to confirm scientific names.

## Results

### *Mya arenaria* (Soft shell clam)

- Are slightly opened all the time
- Chalky white shell with gray and black splotches
- Siphon\* is partially protruding from shell
- Squirts water out of siphon when disturbed
- Found in the intertidal zone, often buried in sand or mud



Figure 2: Sample of an invertebrate page in the field guide.

### *Ascophyllum nodosum*

- Olive-green in color
- Very long
- Hangs off rocks
- Forked tips
- Single, firm, large oval float bladders\*
- Can be found in the rocky intertidal zone but in locations away from heavy wave action
- Year-round algae



Figure 3: Sample of an algae page in the field guide

### Dichotomous key

- 1a Does it have a backbone.....go to slide 37
- 1b Does it not have a backbone.....go to 2
- 2a Does it have a shell.....go to 3
- 2b Does it not have a shell.....go to 4
- 3a Does it have jointed legs.....go to slide 28
- 3b Does it not have jointed legs.....go to slide 20
- 4a Is it seaweed.....slide 3
- 4b Is it orange, stiff and slightly spongy.....slide 18

Figure 4: The dichotomous key made specifically for the guide.

## Results (continued)

- The field guide contains commonly found species native to the New Haven Harbor area, which were organized by phylum. A phylum is the way to distinguish between different taxonomic groups. Each page includes the species' scientific name, identifying features and photos. (Fig. 2 and Fig 3)
- A dichotomous key was made to direct students to the appropriate species page. (Fig. 4)

## Discussion

- This guide includes a variety of species that the students of Introduction of Marine Biology course are likely to find during their labs in the field.
- Due to seasonality, species from the Phylum Annelida (worms) were not located.
- As more common species are located, they can be added to the field guide in the future.

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