

Interpretive signage can be an effective way of teaching visitors of nature

preserves and other natural areas about local biodiversity and ecological

appreciation of nature. Scientific illustration, which graphically conveys a

The goal of this project was to create engaging, educational signage for

interesting aspects of the preserve's ecology. The signs feature original

artwork and encourage visitors to learn about nature that surrounds them.

➤ In the Fall of 2020, I went to Great Hollow to brainstorm ideas

with my community partner, and to find some inspiration from

> I was provided with some rough drafts for the text to go on the

> The final step is to have a sign maker produce the signs to be

> I created artwork in the illustration program Krita and then

After discussion with my community partner, four subjects were chosen:

trees at Great Hollow had fallen, were destroyed and remain there

today. The sight of so many trees on the ground could be upsetting to

visitors and also give the impression that the preserve cut the trees

2. Quaker Brook. Due to its high water quality and cold temperatures,

wild brook trout in Connecticut. A sign was developed to educate

Quaker Brook is home to one of the most significant populations of

visitors about the threats facing streams and sensitive fish like brook

diverse ecosystems because they build dams to hold water in place,

about the role of beavers as "ecosystem engineers" and the benefits

creating ponds that are teeming with a wide variety of amphibians,

fish, and other organisms. A sign was created to educate visitors

4. The Hemlock Wooly Adelgid. Hemlock trees in New England are

rapidly declining due to an invasive insect, the hemlock wooly

down, so a sign was created to educate visitors about the importance

1. Storm Disturbance. After a devastating storm in 2017, many large

of storm disturbances to forest regeneration and health.

trout, and the importance of protecting stream health.

3. American Beavers. Beavers are important to many biologically

sign's message, is a key aspect of interpretive signage and can be a critical

processes so that they leave with an improved understanding and

Great Hollow Nature Preserve that will teach visitors about some

factor in whether or not a visitor stops to view a sign.

the scenery for the artwork.

signage and some topic suggestions.

added text after doing research on the topics.

displayed along Great Hollow's hiking trails.

INTRODUCTION

PROCESS

TOPICS

Enhancing the Visitor Experience with Interpretive Signage and Scientific Illustration

NRCA Student: Sarah Valdivieso¹

Community Partner: Dr. Chad Seewagen²

High School: Homeschooled¹

Project Location: Great Hollow Nature Preserve & Ecological Research Center, New Fairfield, CT²

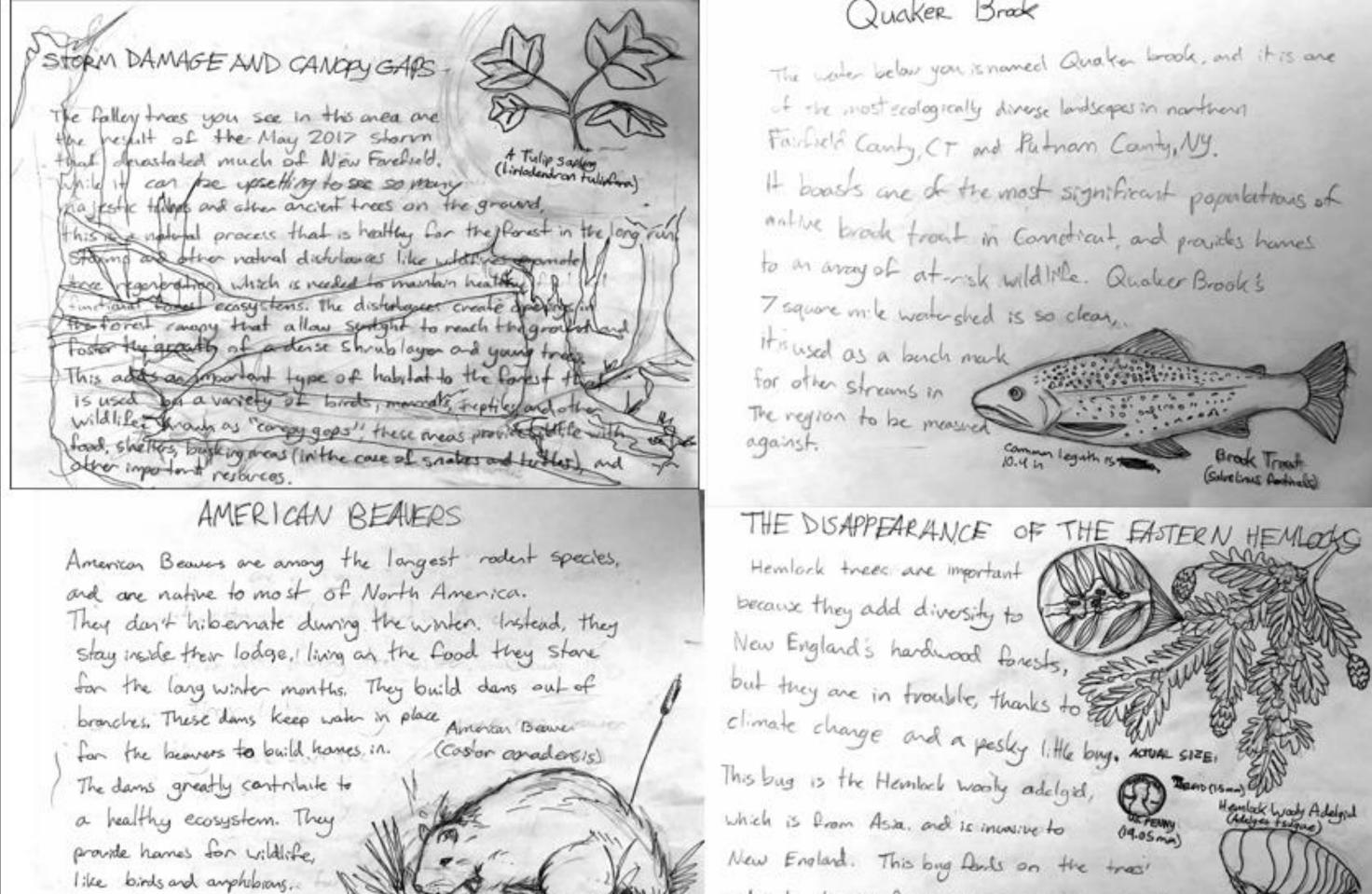
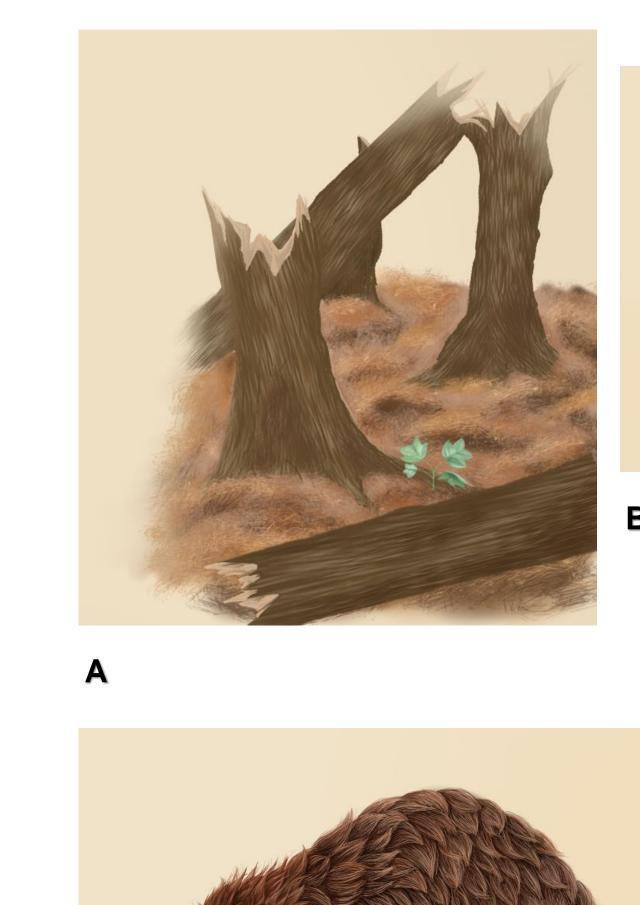


Figure 1. The original concept sketches for the project. Some changes and adjustments have

autrients, leaving fuzzy masses on the induside Bower dans also help to reduce Planding

been made to the artwork, for reasons that came up during the art process.





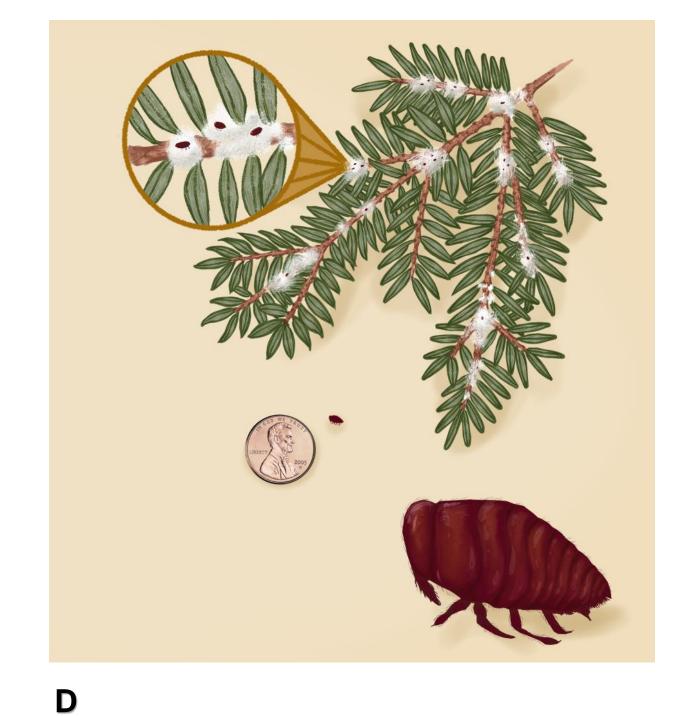
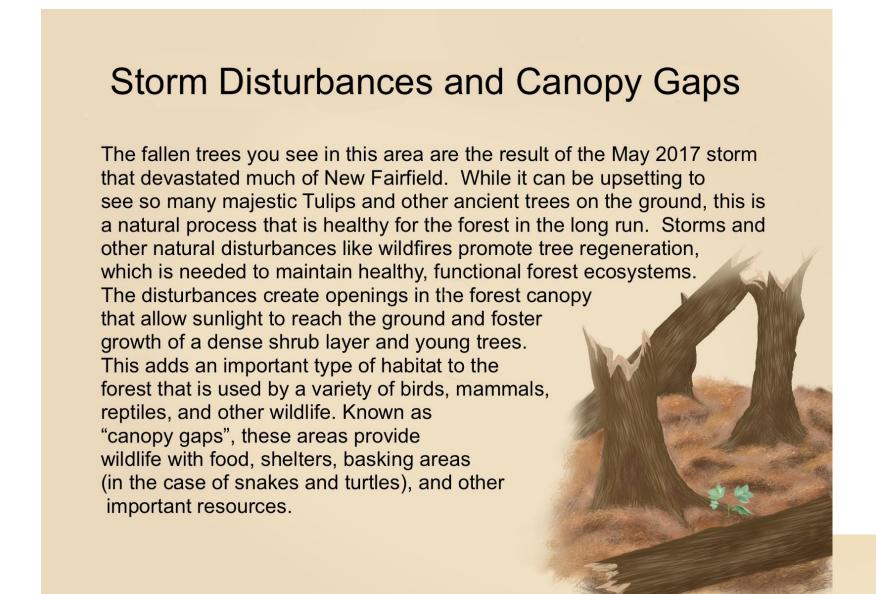


Figure 2. These are the finished illustrations that will go on the signage at Great Hollow Nature Preserve: A) Storm Damage; , B) Brook Trout C) American Beavers; Hemlock Wooly Adelgid





Quaker Brook

Quaker Brook is one of the cleanest and ecologically intact streams in our area and is used as a benchmark against which to measure the quality of other streams in Connecticut and New York. It provides habitat for an array of sensitive species including the brook trout. The ndicative of stream health. Brook trout require clean, cold, fastmoving streams, and are declining throughout their range because of pollution, development, hydropower dams, and climate change. Many are instead stocked with hatchery-raised fish to provide opportunities for recreational fishing. Quaker Brook still supports wild, naturally-reproducing Brook Trout brook trout and has one of the most significant populations remaining in Connecticut.

Ecosystem Engineers

The American beaver is among the world's largest rogent species and is native to most of North America. Beavers spend the winter inside lodges they construct, feeding on inner-tree bark, buds, twigs, and other plant matter that they store in advance. Beavers are known as "ecosystem engineers" because they alter habitats by felling trees and damming streams. The dams create a pond known as an "impoundment." The large, open area in front of you is the result of beavers frequently damming Quaker Brook, which prevents the area from succeeding into forest. This provides wetland and shrubland habitat for a variety of plant and animal species that otherwise would not be present.

Figure 3. These are the final signage designs, with illustration and text.

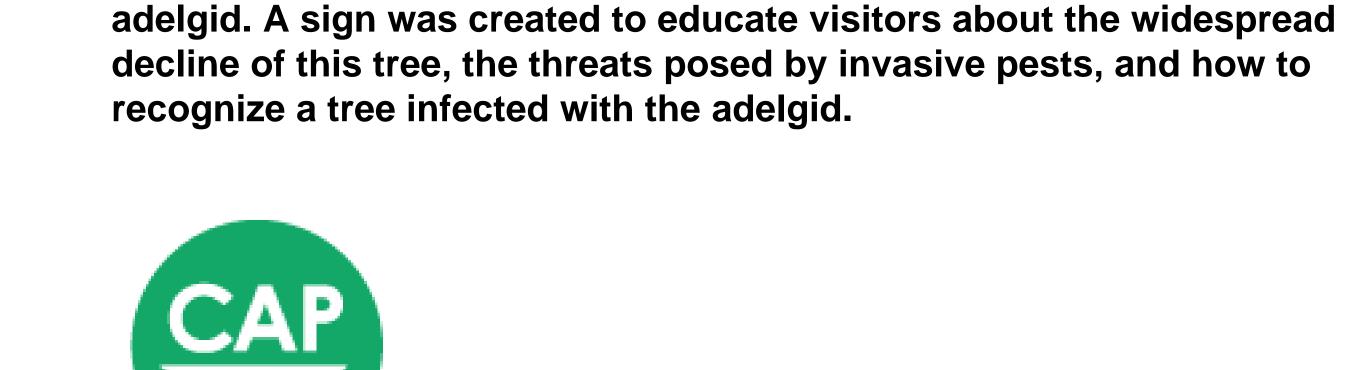
The Decline of the Eastern Hemlocks hardwood forests. Unfortunately they are in trouble due to climate change and a pesky little bug. This bug is the Hemlock Wooly Adelgid, which is from Asia, and is invasive to They also greatly contribute to forests' transpiration (the process of water evaporating from a plant's leaves), because they have discovered that in Hemlock Wooly Adelgid-infested areas, the amount of smaller and finer roots of the Hemlock trees were significantly less than average.

RESULTS

The artwork is completed and text has been added. The signs will be displayed at Great Hollow Nature Preserve to be read by visitors and provide answers to some questions they might have about local wildlife and ecosystems. The signs will be printed on a weather-durable surface and mounted in strategic places along Great Hollow hiking trails.

ACKNOWLEDGEMENTS

I would like to thank my community partner for working with me on this project. Dr. Chad Seewagen helped me brainstorm ideas and topics for the signs and edit draft text. This program has been a wonderful experience.



they provide to other wildlife.

Conservation Ambassador Program