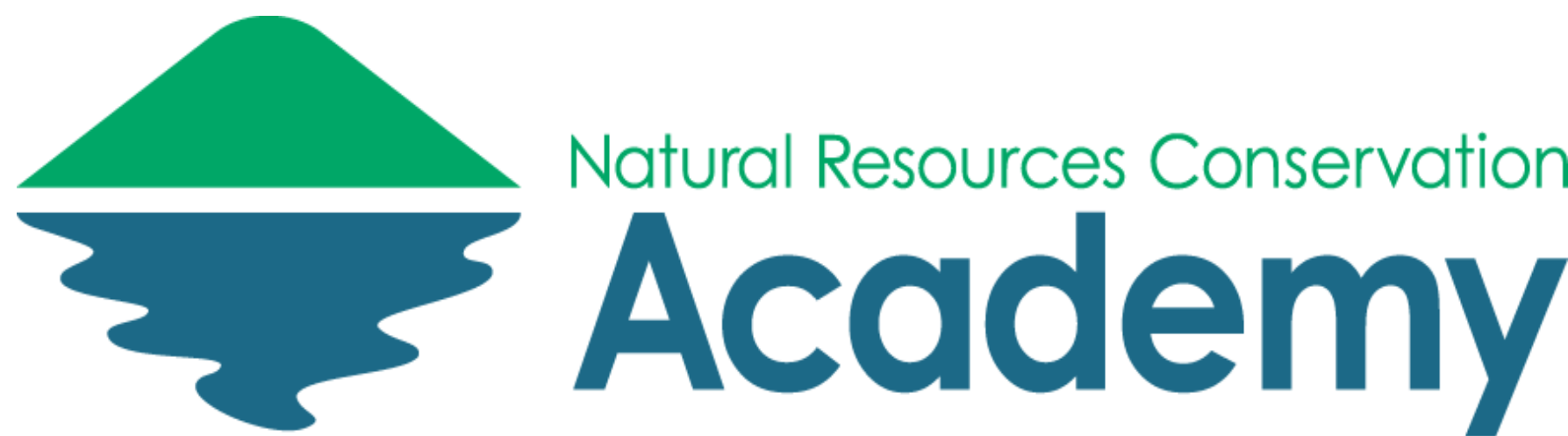


# Past and Current Status of Osprey on the Connecticut River



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## ABSTRACT

Osprey are an important part of the Connecticut River ecosystem. Their long term survival not only benefits the Osprey species, but all other species that call the Connecticut River home.

The goal of my project was to help the Osprey in two ways. First, by bringing awareness to the decline and rebound of Connecticut Osprey populations, and second, by helping with the maintenance of Osprey platforms that provide safe locations for osprey to build their nests.



Fig 1. (Left) Osprey nest platform with cam. (Right) Osprey diving for food.

## INTRODUCTION

Essex, Connecticut has been a home to Osprey since before it was a home to people (Fig. 2). However, due to human presence, the Osprey population suffered in the mid to late 20<sup>th</sup> century. The birds that once occupied the banks of the Connecticut River were nowhere to be seen.

Their population has since rebounded, but many Essex residents are still unaware of the struggles the Osprey population went through, and the amazing progress they have made in recent years. In particular, nests built and maintained by the Essex Land Trust have contributed to the Osprey's success (Figs. 3 & 4).

The purpose of this outreach project is to inform the citizens of Essex about Osprey as well as participate in maintenance of Osprey nests. I contributed to a book that contains information about the history of Osprey, their current status, and the efforts that the Essex Land Trust has made to help the Osprey, specifically the nest on Thachbed Island.



Fig 2. Photos of Essex Osprey. (Left) An Osprey returning with a fish from the Connecticut River to it's nest. (Right) Three Osprey offspring waiting in the nest on Thachbed Island.

## MATERIAL AND METHODS

My project consisted of two parts: creating the sections of the Osprey book and maintenance on the Osprey nests that the Essex Land Trust maintains.

### Working on the Nests

- We canoed out to Thatched Island, a marshy island in the Connecticut River that is home to an Osprey nest platform (Fig. 4).
- The Osprey camera had to be disabled for the winter (Fig. 3).
- The wires that bring electricity from the solar panel to the camera had to be bagged up to keep them dry through the winter.

### Researching for the Book

- I worked on a section about the history of Osprey and the Connecticut River.
- The other section was about identification and behavior of Osprey.
- The sources I used were: Birds of North America Online, National Geographic, Atlantic Naturalist, Hartford Audubon Society, Osprey Nation, and Connecticut DEEP Wildlife division.
- I surveyed 12 people to evaluate the effectiveness of the book sections.



Fig 3. Photos of Osprey taken by the live video camera mounted on the nest platform on Thatchbed Island.

## RESULTS

### Information in the Book

Through the research I conducted for the Osprey book, I found that the main cause of the decrease in population was the use of pesticides, specifically DDT. It was used to combat mosquitoes especially in farm areas and found its way into the food chain. Insects would be eaten by fish which eventually would be caught by Osprey. The insecticide impacted Osprey's reproductive system by causing the thinning of their egg shells which would crack when the female Osprey incubated the eggs. The result was nest failure.

### Impact of Book

Many of the Essex residents that I surveyed had very little prior understanding of Osprey in this area (Table 1). Many people did not know that the Osprey population here nearly went extinct, and many did not know the cause of this near extinction. While the land trust and legislatures have put immense effort into helping the Osprey, Essex residents remained unaware. After reading the section I wrote, people were able to correctly answerer nearly every question, showing that the book was able to effectively inform them about the problems Osprey have been facing, and what they can do to help the Osprey's continued success.

Table 1. Number of correct responses to a survey on CT Osprey populations taken by 12 Essex residents. Survey was taken before and after reading the Osprey book sections.

Question	Correct Before	Correct after
In the 40's, approximately how many Osprey nests were located between Boston and New York?	2	12
How many in the 60's?	0	11
What efforts were initially taken to help the Osprey?	1	12
When did Osprey hit their all-time low in CT?	3	12
What was this low?	0	11
What was to blame for the Osprey decline?	6	12
What was done in 1972 that helped the Osprey population rebound?	3	12

## CONCLUSIONS

This book will help increase people's awareness of the history and current status of Osprey in this area. If people better understand the reasons that the Osprey nearly went extinct, they can help make sure that it never happens again. Many people do not realize that their actions can have a drastic effect on the surrounding ecosystems. If people were aware of the potential damage that they were causing, they might change their behavior.

In addition, when people understand the importance of the work the Essex Land Trust is doing, they might want to become members themselves. They might chose to donate money or their time to help the land trust preserve and build habitat for animals like the Osprey that have been negatively effected by human activities.

It is difficult to fix a problem that you are not aware of. This Osprey book will make the residents of Essex aware of the problems Osprey have faced, so that they can become part of the solution rather than part of the problem.



Fig 4. Osprey on nest platform with the live camera (left) and without the live camera (right) on Thachbed Island.

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