

The Chimney Swift Conservation Project

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Abstract

The Chimney Swift Project is a student team promoting conservation for Chimney Swifts, a species of small insectivorous bird found throughout the eastern United States and Canada during their breeding season. In a natural setting, Chimney Swifts nest in hollow trees which were common in the old-growth forests prominent in the United States before European colonization. Currently, Chimney Swifts population is on a steep decline primarily due to human caused habitat destruction. Overall, 75% of the population has been lost since 1970. Our project aims to promote the conservation of Chimney Swifts through the construction of a nesting tower and public education.



Figure 1, Chimney Swift range throughout the year

Background

Chimney Swifts are a small insectivorous birds found throughout the eastern United States and Canada during the breeding season, May to September (Fig 1). In a natural setting. Chimney Swifts nest in hollow trees common in old-growth forests. The destruction of these forest habitats by humans has forced the Chimney Swifts to find new breeding sites in human-built structures such as chimneys and smokestacks. Since 2010 the species has been classified as "vulnerable to human-caused extinction" by the International Union for Conservation of Nature due to the steep decline in population. A 3% decline has been reported each year. and overall 75% of the population has been lost since 1970 (Geneseo Chimney Swift Project 2019). This decline is believed to be primarily related to a decrease in the number of suitable nesting sites as newer buildings are being constructed with chimneys designed to keep out wildlife. Efforts to prevent the extinction of Chimney Swifts are being made across the Eastern United States and Canada. These efforts focus on the construction of artificial nesting towers (Fig 2), research on nesting sites and population, outreach and education, and applied learning in conservation (Kyle and Kyle). These endeavors need to rigorously continue to combat the fast declining rates of these birds within our region.

Objectives

The objectives of our study are 1) the construction of one or more Chimney Swift nesting towers 2) contributions to Chimney Swift research and 3) public education of Chimney Swifts and integrative learning for Geneseo students. Our nesting tower(s) will be designed and constructed by the four of us as a team and with the help of volunteers. Contributions to Chimney Swift research will include experimentation with different tower designs to find the best fit for our region. The tower will also provide the ability to monitor and report Chimney Swift nesting habits and current population trends in the area. Outreach and education in our project will focus on raising awareness of Chimney Swift decline in the form of an informational kiosk to go along with our tower, online materials, and oral presentations. Integrative learning that we will provide will allow all Geneseo students to volunteer in the project and gain applied conservation experience.

Progress

Our chimney swift tower is under construction and will be installed on the Geneseo campus in the near future (Fig 3). For outreach and education, we have had an article published in the Genesee Valley Audubon Newsletter, are working on informational material to go with the tower, and are working on educational outreach such as presentations.

Figure 2, A completed chimney swift tower

Figure 3, Students working on the chimney swift tower construction





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Reference

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Poster Tips: https://docs.google.com/document/d/1wR0mRdaA3Gjd1Q6urWufcj5bkFUqPQ7ZsSttWbwRzXU/edit