

Alabama SwiftWatch

2020 Report

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**ALABAMA
AUDUBON**

Founded in 1946 as the Birmingham Audubon Society, Alabama Audubon has since grown to become the state's leading nonprofit promoting conservation and a greater knowledge of birds, their habitats, and the natural world. While we work closely with our partners at the National Audubon Society, we are an independent 501(c)(3) organization with staffed offices in Birmingham and on the Gulf Coast.

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Table of Contents

Acknowledgements.....	4
Breeding Season	5
Nest-site Monitoring.....	5
New Towers	5
Fall Migration.....	9
Roost-site Monitoring.....	9
Demolished Roosts	11
2021	11
Roost Photos	11

Acknowledgements

Many thanks to all of the SwiftWatch volunteers for making the second year of this community science project a success. I would also like to thank Ruffner Mountain, Birmingham Botanical Gardens, and Oak Mountain State Park* for allowing me to monitor the nest towers on their properties (*a scientific research permit was obtained to monitor nest towers at Oak Mountain).

Breeding Season

Nest-site Monitoring

During the chimney swift breeding season, we checked nest towers for breeding activity in order to document tower use and nesting success. We checked twelve towers during April–July, and swifts nested in four of the twelve towers (Figure 1). It appeared that young successfully fledged from nests in three of the towers. One tower had a squirrel nest in it and we presumed another tower had a small mammal in it as the bottom appeared to be covered in nest material.

Chimney swifts may also use nest towers as roost sites during migration. This year one of our SwiftWatch volunteers monitored a nest tower throughout the fall (see Roost-site Monitoring below).

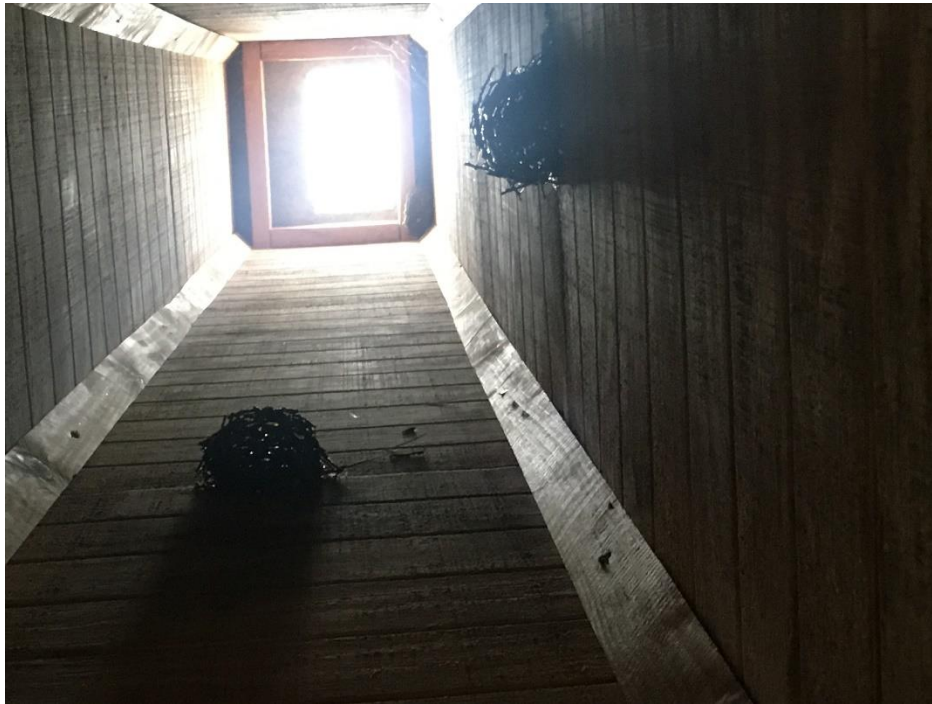


Figure 1. Two chimney swift nests in a nest tower, one from 2019 and one newly constructed in 2020. The view is looking up into the tower from below.

New Towers

In 2020, three new towers were built with funds from Alabama Audubon’s education mini-grants; one at Dothan Area Botanical Gardens (Figure 2), one at Auburn University in Montgomery (Figure 3), and one at Red Mountain Community School in Birmingham. This brings the number of towers funded by Alabama Audubon to eight, with plans for four more to be constructed next year. We also know of an additional six towers throughout the state that were not funded by Alabama Audubon. This year, we also developed a kiosk sign that can be used on or near new towers (Figure 4).



Figure 2. Chimney swift nest tower built in 2020 at the Dothan Area Botanical Gardens. Photo: William Holman, Director, Dothan Area Botanical Gardens.



**Figure 3. Chimney swift nest tower built in 2020 at Auburn University.
Photo: Michelle Taliaferro.**



GET TO KNOW THE CHIMNEY SWIFT

This smudge-gray little bird spends almost its entire life airborne.

THIS TOWER SERVES AS A NESTING PLACE FOR THESE REMARKABLE BIRDS—THEY CANNOT PERCH, SO THEY CLING TO THE INNER WALLS OF THE TOWER, BUILD THEIR NESTS, LAY THEIR EGGS, AND FLEDGE THEIR YOUNG INSIDE IT

WHY SHOULD YOU CARE ABOUT CHIMNEY SWIFTS?

■ Chimney swifts eat nearly one-third of their own weight in flying insect pests, such as mosquitoes, biting flies, and termites, every day.

■ Chimney swifts historically used large, hollow trees for nests and roosts. As the ancient forests were cut down, they learned to use chimneys and other structures instead.

■ Today, just like purple martins, chimney swifts rely almost entirely on man-made structures for nest sites. Because they cannot perch like songbirds, chimney swifts must have deep shafts in which to raise their families and roost at night.

■ Chimney swifts are protected by state wildlife codes and federal law under the Migratory Bird Treaty Act of 1916.

■ Like all neotropical migrants, chimney swifts are declining in numbers and need our assistance.

■ Like watching a beautiful sunset, the aesthetic value of observing chimney swifts' aerial acrobatics and interactions is a simple pleasure that nature has to offer.



ALABAMA SWIFTWATCH

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Chimney swifts historically nested and roosted in hollow trees. As pioneers moved westward across the continent, they cleared forests and removed the swifts' natural habitat. The birds that Audubon called American swifts became known as chimney swifts as they readily adapted to the masonry chimneys erected by those same pioneers. Over the decades, the range of the swifts expanded with the ever increasing availability of this new, man-made habitat. However, habitat loss from destruction of old chimneys, capped chimneys, and pesticide use are causing a decline in the species of 2.5% per year since 1966 for a cumulative decline of 72%.

Chimney swifts breed here and winter in South America.



Figure 4. Kiosk sign for chimney swift nest towers, created by David McMath.

Fall Migration

Roost-site Monitoring

To date, the SwiftWatch project has identified 187 roost chimneys or potential roost chimneys throughout the state (not including residences): 83 have been used by swifts, 23 did not have roosting swifts when checked or were capped, and 75 have not been checked yet. Six of the chimneys have been demolished in recent years.

This year, our SwiftWatch team included a total of 64 people; 40 people submitted data and 24 people were listed as additional observers. A total of 54 sites were monitored in five cities: Athens, Birmingham (and surrounding suburbs), Mobile, Montgomery, and Tuscaloosa.

The monitoring protocol was adjusted from that used in 2019. This year volunteers were asked to check their main roost chimney a minimum of three evenings during the fall, once in August, September, and October, and everyone went out on the same evening. Several people conducted counts more than just the three times, and some monitored more than one chimney. For information on monitoring protocols you can read the SwiftWatch manual at: alaudubon.org/wp-content/uploads/2020/05/2020_SwiftWatchManual_Final.pdf.

We had a total of 184 data submissions for roost-site monitoring during July–October, with 144 from the greater Birmingham area. During that period, we counted/estimated a total of 45,435 swifts. The largest roost site was in Birmingham, with an estimated 2,500 swifts coming in to a chimney in one evening. Huntingdon College in Montgomery had the second-largest roost, with 1,800 swifts. Several new roost chimneys were checked/monitored this year, including several in Montgomery, and one in Mobile that had 258 swifts come in to roost one evening. A nest tower at Oak Mountain State Park was also monitored for roosting swifts during fall, and a maximum of 43 individuals roosted in the tower in one night.

Numbers of swifts began to increase in early-September and peaked in mid-September at sites in Birmingham (Figure 5) and some sites in Montgomery (Figure 6). However, at one site in Tuscaloosa, swift numbers peaked in October (Figure 7). The number of roosting swifts dropped rapidly in October in Birmingham, which may have been due to a drop in temperature; daily low temperatures moved into the high-40's to low-50's (Figure 5).

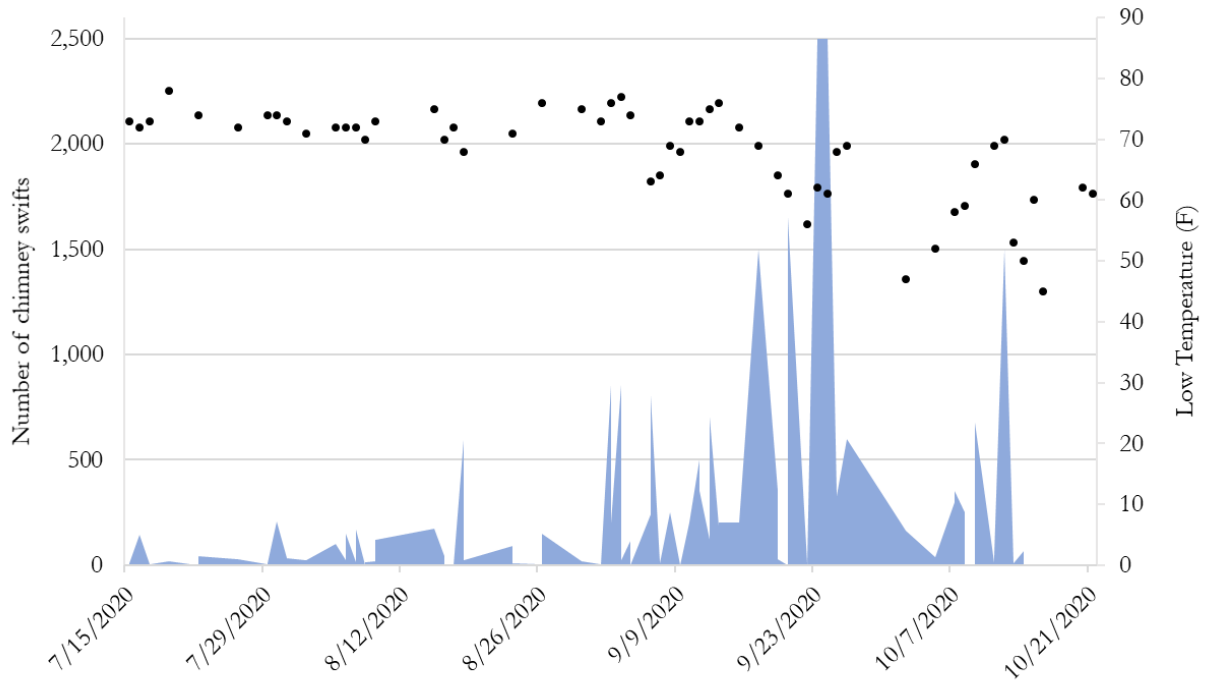


Figure 5. Roost-site monitoring data for all sites in Birmingham during July-October 2020.

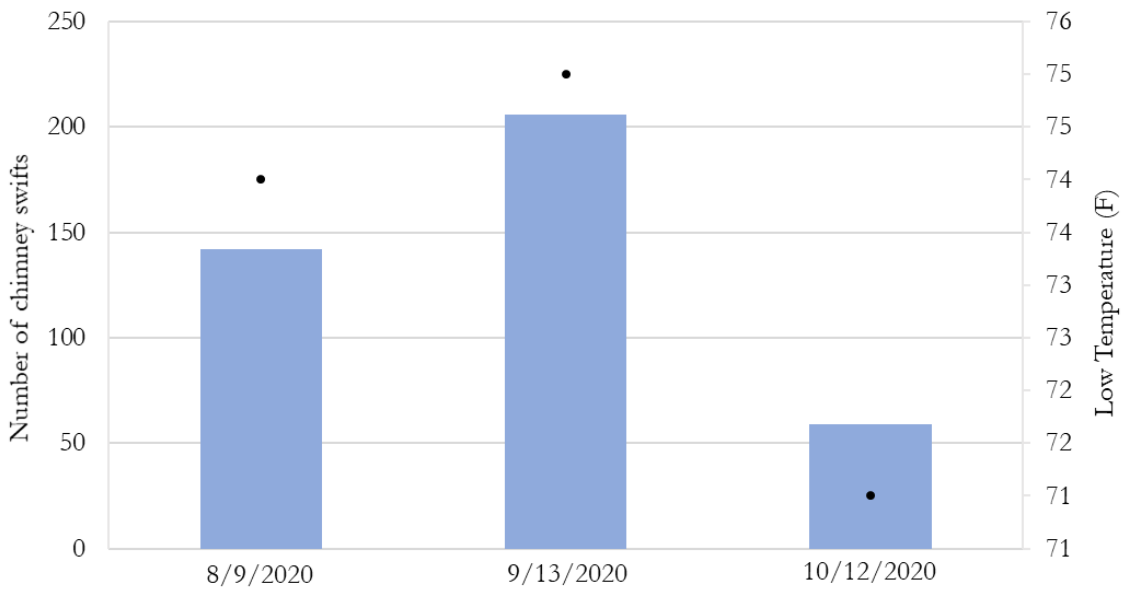


Figure 6. Roost-site monitoring data for Huntingdon College, Montgomery.

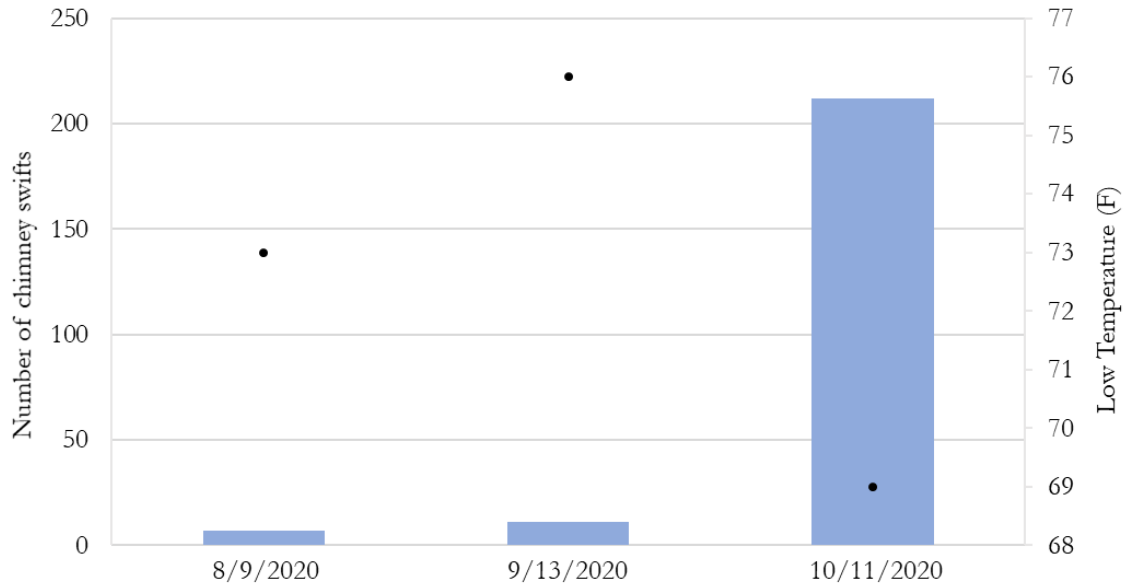


Figure 7. Roost-site monitoring data for Honors Hall, University of Alabama, Tuscaloosa.

Demolished Roosts

In 2020, we know of one large (nearly 600 swifts came in to roost in one evening this fall) chimney that was demolished in Hoover. We were able to have a discussion with a staff member of the facility; however, the building was being completely demolished rather than renovated, and they were not able to save the structure for roosting swifts.

2021

In 2021, we will have virtual and in-person training sessions that will focus on how to estimate the number of swifts coming in to roost. We hope to continually expand the program to other cities across the state. Lastly, we plan to develop strategies for contacting building owners/managers about preserving roost chimneys.

Roost Photos

The following photos are a selection taken by SwiftWatch volunteers from across the state.



Birmingham, AL. Photo: Lance Day.



Birmingham, AL. Photo: Hans Paul.



Cooper's hawk at a chimney swift roost. Birmingham, AL. Photo: Hans Paul.



Birmingham, AL. Photo: Greg Harber.



Birmingham, AL. Photo: Greg Harber.



Montgomery, AL. Photo: James Daniels.



Tuscaloosa, AL. Photo: Adam Levin.