Chimney Swift
Nest Site Research Project

Driftwood Wildlife Association P.O. Box 300369 Austin, Texas 78703

Chimney Swifts historically nested and roosted in hollow trees. As American 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 and their numbers swelled with the ever increasing availability of this new, man-made habitat. However, changes are again challenging this adaptable species.

The **North American Chimney Swift Nest Site Research Project** is an effort to promote Chimney Swift conservation by identifying and monitoring existing nest and roost sites, educating property owners about the beneficial nature of Chimney Swifts as insectivores, designing, installing and monitoring new structures specifically for use by Chimney Swifts as nest and roost sites. Our newsletter, Chaetura, is distributed to hundreds of volunteer Research Associates all across North America. We hope that you will join us!

Paul and Georgean Kyle
Project Directors

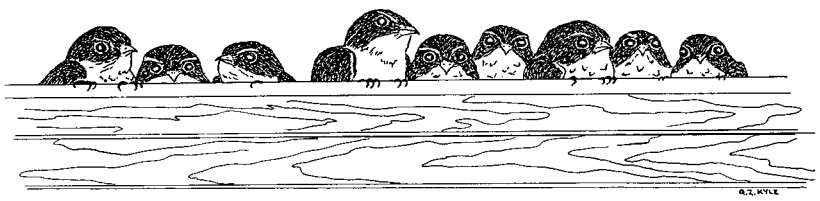
WHAT IN THE WORLD IS THAT SOUND ?

Chimney Swifts create a variety of sounds during their stay with us in North America during the warmer months. There is the "whooshing" sound of their wings as they come and go from the chimney. They utter a gentle "chippering" as they socialize with one another in the roost during nest-building and at night. The most audible sounds are those of the young which have two basic vocalizations: the feeding call which is a very loud, high-pitched "yippering" as they beg for food from the returning parents, and their mechanical, hissing alarm call which they make when disturbed or frightened.

As long as the young are making the loud feeding call, they are incapable of sustained flight and are completely dependent on their parents for food. Homeowners' tolerance during this critical period of the swifts' development is very important. If the young are forced from the chimney during this period, they will perish -- slowly starve to death over a period of several days. The parents are unable to care for them outside of their chimney.

Once the sound of the young becomes noticeable, they are usually only 10 days or so from fledging. Keeping the damper closed and packing the fireplace with insulation can dampen the sound to tolerable levels. If additional incentive is needed to allow the swifts to continue their breeding cycle, consider this: the raucous sound emanating from your fireplace is the sound of thousands of annoying mosquitoes, biting flies and flying ants being converted into beautiful, graceful migratory avian insectivores which will consume thousands more of the insect pests we swat and curse during the summer months.

Chimney Swifts, like many of our precious Neotropical migrants, are declining in numbers throughout North America. We should all be concerned about their plight and do whatever we can to encourage their survival. They do not require acres of unspoiled wilderness, expansive wetlands or complicated wildlife management plans. They only require one square foot of unused column like our chimneys during the summer when we don't need them...and a little tolerance.



LIFE HISTORY OF THE CHIMNEY SWIFT

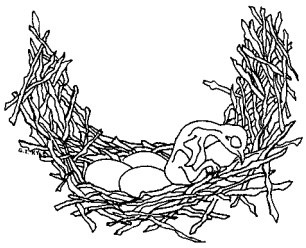
The Chimney Swift is one of four regularly occurring species of swifts found in North America, and the most common one found east of the Rocky Mountains. As their name implies, they are accustomed to building their nests in chimneys as well as abandoned buildings and occasionally stone wells.

Adult Chimney Swifts are most commonly seen in flight -- usually in groups. When soaring, their long, scythe-shaped wings span about 12.5 inches supporting a proportionally short body with a squared-off tail. The flickering, bat-like flight when flapping is due to short, massive wing bones. Chimney Swifts' flight is accompanied by a sharp "chippering" or "ticking" call.

At rest, an average 5 inch, 22 gram adult is sooty-gray to black with the throat silvery-gray in color. Both sexes are identical in appearance. The long wings cross by an inch or more over the tail feathers, which are tipped by pointed bristles. The claws and tail bristles are used to cling to rough vertical surfaces. Swifts are unable to perch or stand upright in passerine fashion.

Chimney Swifts winter in the Amazon Basin of Peru. They arrive in the continental United States in late March and are gone by early November. Nesting begins in May, and has been known to continue into August. Chimney Swifts are usually single-brooded, and there will be only one active nest in any structure regardless of the size of the site.

The female normally lays three to five white eggs in a nest of twigs which are broken from the tips of tree branches, glued together with saliva and attached to a vertical surface. Both sexes are involved in nest construction. The eggs are incubated by alternating adults for eighteen to nineteen days. Chimney Swifts catch flying insects on the wing. Baby Chimney Swifts are fed by both parents. The feeding continues until the birds fledge from the chimney about 30 days after hatching.

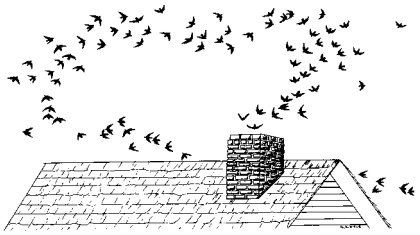


Newly hatched Chimney Swifts are naked and completely helpless

Five day old Chimney Swifts have pin feathers on their heads and bodies

When ten days old, the tips of the swifts' flight feathers begin to unfurl

Fledgling swifts will exercise by "practice-flapping" while clinging tightly to the nest or chimney wall



Chimney Swifts congregate in the fall at suitable roost sites

The hatchlings are pink, altricial and completely naked at birth. They have sharp claws which enable them to cling to textured surfaces. Within a few days, black pin feathers begin to appear. The young are able to climb, and they exhibit preening behavior even before their feathers emerge.

By the time they are eight to ten days of age, the babies' feathers begin to unfurl. By fifteen to seventeen days of age, their eyes begin to open.

Shortly after their eyes open, most of the flight and body feathers will be unfurled. However, the feathers around the face and head will stay in sheath for several days -- giving the birds a "frosty-faced" appearance.

By the time Chimney Swifts are 21 days old, they will cling tightly to the nest or chimney wall, rear back and flap their wings furiously until they are panting and out of breath. Twenty-eight to thirty days after hatching, young Chimney Swifts will leave the safety of the chimney for their first flight.

Once an entire brood has fledged, they will fly with their parents in slow, noisy parades around the area of the nest site. The young will return frequently to the roost during the first few days, but may soon begin to visit other roosts in the area.

At the end of the breeding season, the swifts' communal instincts peak prior to fall migration. They congregate in flocks of hundreds and even thousands at suitable roost sites.

Although Chimney Swifts can withstand a few early cool snaps, they will usually ride south on the first major cold-front that blows through in the fall.

This is an edited excerpt from Rehabilitation and Conservation of Chimney Swifts, Fourth Edition by Paul and Georgean Kyle. Copyright, 2004

CHIMNEY SWIFT TOWER DESIGN BASICS

Experimentation with new materials, designs and methods of installation continue. However, several principals are known to work well in wooden Chimney Swift towers.

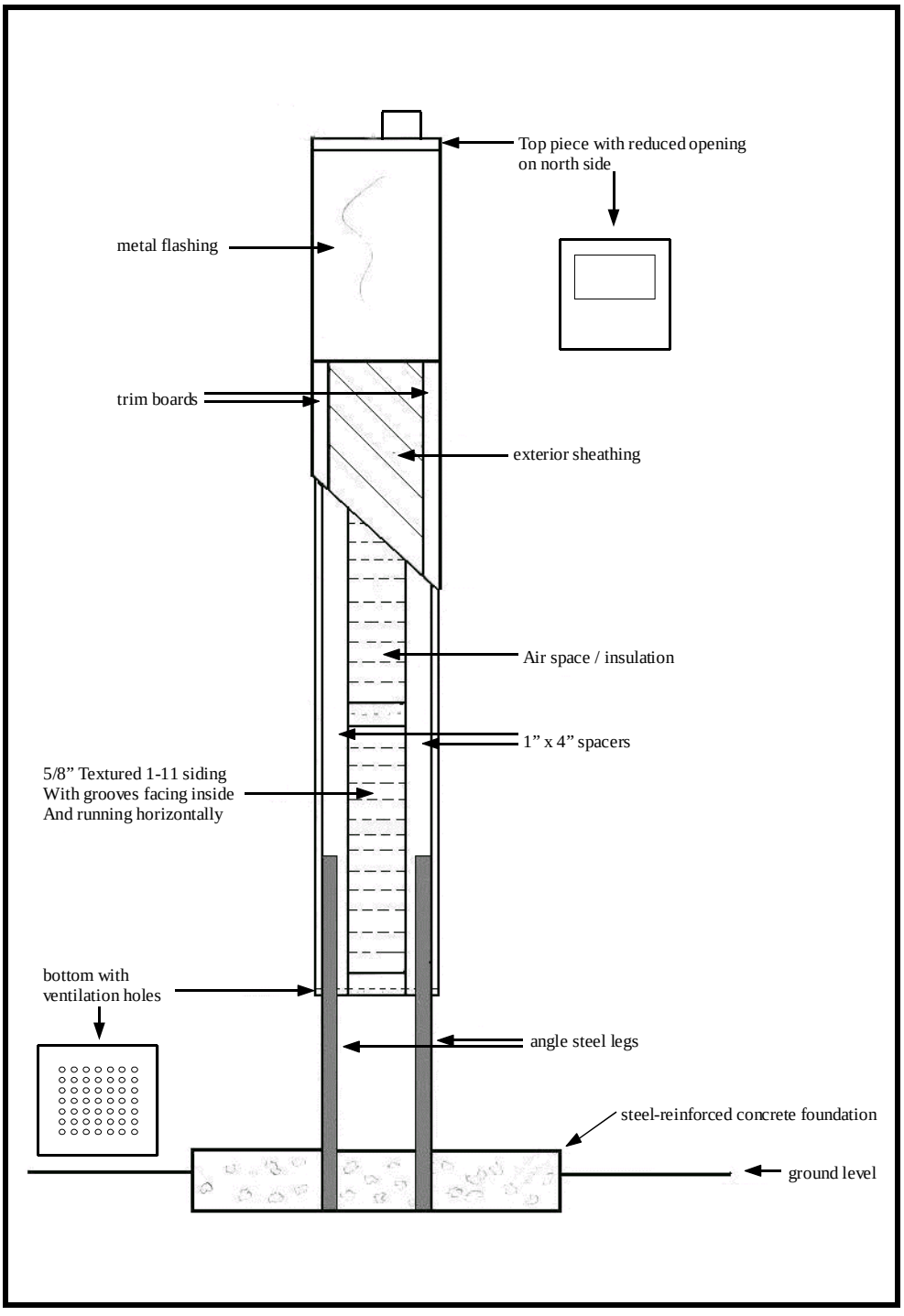
Heavy texture on the inside is essential. 5/8" Textured 1-11 siding is readily available and easy to work with.

Wooden towers should be double-walled with a space between the inner nest chamber wall and the outer skin. This space should be filled with some form of insulation to prevent overheating. A minimum of 3/4" rigid foam insulation is recommended.

The recommended minimum height is 8', but 12' is preferable. The inside diameter should be no less than 14".

A 24" band of metal flashing around the top is also mandatory. This will prevent predators from being able to climb the tower and gain access to the nest chamber.

The bottom of the tower should be made from 3/4" treated plywood and have a grid of 3/8" holes spaced 1 1/2" apart for ventilation and installed with wood screws for easy removal. The top should be also be made from 3/4" treated plywood and have a opening cut that is no more that half of the area of the inside of the tower. The opening must be placed on the north top edge of the tower to exclude as much summer sun from the nest chamber as possible.



A free-standing tower on steel legs is easier to protect against ants. A 2" band of Tanglefoot (brand) sticky insect trap can be applied around each leg. A concrete foundation will eliminate the need for guy lines. Towers that are 12' tall will require a 48" x 48" x 10" steel-reinforced concrete slab. Towers that are 8' tall will need a slab measuring 36" x 36" x 6". In areas where frost heave is a potential problem, consult local building codes for advice.

In the fall, after the swifts have migrated out of the area, the bottom should be removed and droppings cleaned from the tower. This is a good time to count egg shells and assess the success of the nesting season. Old nests should also be removed at this time. Covering the tower during the winter months will extend the life of wooden towers.

WHY SHOULD I 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.

WHAT CAN I DO TO HELP CHIMNEY SWIFTS?

- If you have a masonry or clay flue-tile chimney, keep the top open and the damper closed from March through October to provide a nest site for these insect-eaters. Metal chimneys should be permanently capped to prevent birds and other wildlife from being trapped.
- Have your chimney cleaned in early March before the Chimney Swifts return from their winter home in South America.
- Work with local conservation groups to construct Chimney Swift Towers and educate your friends and neighbors about Chimney Swifts.
- Join the North American Chimney Swift Nest Site Research Project as a Research Associate!

HOME CHIMNEY MAINTENANCE: SELECTING AN APPROPRIATE CHIMNEY SWEEP

Every chimney needs to be professionally cleaned each year for the safety of the homeowner as well as for the safety of the Chimney Swifts. Although attitudes are changing within the chimney sweeping industry, there are still companies that will remove active nests and kill or discard the young. Before hiring a chimney sweep, ask what action they take when they find birds in a chimney. NEVER hire a company that openly advertises "Bird Removal".

Visit our web site at:

www.chimneyswifts.org

In addition to learning more about the North American Chimney Swift Nest Site Research Project, you can:

- ◊ learn about wildlife rehabilitation
- ◊ download past issues of **Chaetura**
- ◊ watch the real-time Chimney Swift Web Cam
- ◊ order publications from Driftwood
- ◊ learn more about Membership in DWA

Send your e-mail to DWA@austin.rr.com

North American Chimney Swift Nest Site Research Project
is one of several projects of the
Driftwood Wildlife Association,
a non-profit all volunteer organization supported by tax-deductible contributions. DWA is dedicated to promoting research and providing community education in the areas of wildlife rehabilitation and avian natural history.

Membership categories are:
$ 10.00 Research Associateship
$ 30.00 Research Associateship plus one year's Supporting Membership in DWA.

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