Chaetura

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Every year we receive several letters and emails from folks who reminisce about "clouds of Chimney Swifts" that they remember from their youth. Swirling around traditional roosts such as abandoned industrial chimneys, these immense flocks were likened to "smoke going back into the chimney". In fact, such natural phenomena do still occur, but not nearly as commonly as they once did. In some cases, the old traditional roosts have been demolished to make room for new construction, and the swifts have been forced to find alternative safe houses. However, the fact is that there are just not as many Chimney Swifts as there were just a few years ago. The National Breeding Bird Survey indicates that Chimney Swift numbers are down by more than 50 percent since the 1980s.

We can make a difference if we open our chimneys, build towers and educate our neighbors about these remarkable birds.

Paul Kyle, Editor

Providing New Habitat for Chimney Swifts

As stated on their web site: "The Lower Colorado River Authority (LCRA) plays a variety of roles in Central Texas: delivering electricity, managing the water supply and environment of the lower Colorado River basin, developing water and wastewater utilities, providing public recreation areas, and supporting community and economic development."

When the LCRA began development of the Muleshoe Bend Recreational Area on Lake Travis northwest of Austin, Texas, they decided to do something very unusual — and in our opinion, very special. They instructed their architects to include some new habitat for Chimney Swifts. At the entry to the park, they built an eleven foot tall cinder block tower covered with natural stone. Completely open at the top with drain pipe in the bottom, this unique structure represents an important landmark in the future of Chimney Swift conservation.

In the past century, Chimney Swifts have benefited from the "accidental habitat" that was created with virtually unlimited new construction of masonry chimneys, airshafts, stone wells, concrete standpipes, etc. However, with that type of construction now rare, the conscious consideration of incorporating new Chimney Swift habitat into architectural features is a bright spot for these declining aerial insectivores.

Report From Chaetura Canyon

The North and South Observation Towers of Chaetura Canyon

The Castle

Chimney Swift research began at the Mansfield Dam Station in earnest in 1989 with the construction of two large wooden towers. Four smaller wooden towers and six cinderblock structures of various sizes have been added over the years. In 2002, eight of the 12 towers were occupied by Chimney Swifts. A total of 46 eggs were laid. 33 (71%) hatched and 30 (90%) fledged. Three of the structures are equipped with miniature surveillance cameras providing an intimate yet unobtrusive look into the activities of the swift occupants.

North Tower

Six eggs were laid in the nest of this tower. The mated pair was accompanied by four "helper" swifts in successfully fledging four hatchlings. Additional swifts began to join the family group after the fledging until August 19. On that evening, the 77 roosting swifts were frightened from their roost by a female rhinoceros beetle that flew into the tower at dusk. The tower remained unoccupied until September 23 when six birds entered to roost. Additional birds arrived nightly totally 125 individuals on October 7. The last swift departed for migration on October 13.

South Tower

The swift pair in this tower also produced six eggs. Five hatched and fledged with no "helper" birds in attendance. A second brood attempt was made in the same nest. Four eggs were laid, however the nest was abandoned following a weeklong rain event.

In addition to the nesting pair of swifts, between 69 and 95 birds roosted in this structure during the spring and summer. The nest containing two eggs was washed from the tower wall on May 28. The female abandoned the tower. The male secured a new mate; the pair constructed a new nest and laid four eggs. Three eggs hatched, all three hatchlings fledged. Additional swifts continued to utilize the structure as an overnight roost. The record number for the year was 323. A lone individual dropped into the tower on Oct. 3, the last day of occupancy.

The Field and Prism Towers

This was the first year of use for the East Tower. Four eggs were laid; all hatched but only three fledged.

The West Tower contained eight eggs. This is a record number in our observations. Five of the eggs hatched. With the aid of a "helper" swift, the pair fledged three young.

The Prism pair of swifts laid four eggs, all hatched and fledged.

The Pool Towers

Five swifts fledged from the North Pool Tower. The only interest shown toward the South Pool Tower was by a male and three female Wood Ducks.

The Garden Tower

This is the smallest structure on the station. Three eggs were laid, hatched and fledged.

The Fence Towers

These cinderblock towers are being constructed at 60' intervals along a fence line of the property. Only one of the present four had any swift activity. A single swift utilized the structure as an overnight roost on two non-consecutive days.

All photos of Chaetura Canyon towers by Paul and Georgean Kyle.

PUBLICATIONS

We wish to express our gratitude to the many individuals that have helped spread the message of Chimney Swift conservation by providing articles for publication and providing links to the DWA website. Among those in 2002 were:

"Birds in Missouri" a new book by Brad Jacobs of the Missouri Department of Conservation.

"Success of Lands Program Brings Dissenters Aboard" by Tom Palmer of The Ledger, a Florida newspaper.

"Thousands of Chimney Swifts Migrating Through Our Area" by YuLee Larner, for the Daily Newsleader, a newspaper of Staunton, Va.

"Chimney Swifts - - Spring and Fall 2002" by Carol Schreter for the newsletter of the Baltimore Bird Club.

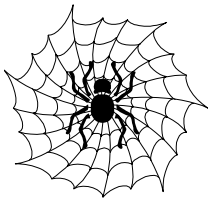
"Chimney Swift Season is Here" by Joyce Rosson for the newsletter for the Lakeside Nature Center in Missouri.

The newsletter of the Audubon Outdoor Club of Corpus Christi, Tx.

Signal Smoke, the newsletter of the Travis Audubon Society in Austin, Tx.

The Humane Society of the United States web site.

ON THE WEB



REPORT YOUR SPRING CHIMNEY SWIFT SIGHTINGS

For the third year we will be posting and mapping first spring Chimney Swift sightings all across North America. You can follow these sightings as we update the map on the DWA web site. Contact us with your first spring sightings!

Email: DWA@austin.rr.com
Phone: (512) 266-3861

CHIMNEY SWIFT WEB CAM

For the past 4 years we have been using surveillance cameras to monitor and record the Chimney Swift activity in the Observation Towers at the Mansfield Dam Bird Banding Station. We have recorded remarkable and previously unknown behavior such as aggressive defense of the nest tower by nesting pairs — against other swifts! This will be the fifth year you can join us in our observations. Additional cameras have been added this year, so there will be even more to see.

The web cam will provide a live feed in real time beginning May 1st and will be active from dawn until dusk (approximately 7:00 am through 8:00 pm CDT). In the event of thunderstorms in our area, it will be shut down.

Visit the Driftwood Wildlife Association web site at
Http://www.concentric.net/~Dwa
and "bookmark" the Chimney Swift web cam now!

SLIDE PROGRAM AVAILABLE

In 2002 we took our 1 hour slide presentation and lecture to various birding, nature and continuing educational groups. If we cannot come to your organization in person, we can provide you with an abbreviated, 50-slide presentation complete with a printed narrative to guide you through your own presentation about Chimney Swifts and the North American Chimney Swift Nest Site Research Project. The program includes close ups of nestling, fledgling and adult Chimney Swifts. There are also slides of several of the tower designs which have proved successful. The program is available for rent or purchase. Several of our Associates have used the program and received rave reviews! For more information contact Paul or Georgean Kyle by phone or fax at (512) 266-3861 or by e-mail at DWA@austin.rr.com.

TRADITIONAL NESTERS PROJECT

Ken Damro is conducting research on traditional nesting Chimney Swifts. He is seeking volunteers to search for Chimney Swifts nesting or roosting in hollow snags, stumps, etc. For more information contact:

Ken Damro
P.O. Box 543
Florence, WI 54121
(715) 696-6630

Traditionalnesters@yahoo.com

Here and there...

Olga and Walter Clifton's Covered Tower
Photo by the Cliftons

Abita Springs, LA.

Olga and Walter Clifton reported "Friday, July 12 we had 6 Chimney Swifts fledge from our tower. I can't tell you how much we have enjoyed this nesting structure and the Swifts." Then in September during the Swift Night Out count…"we had friends come over to help count. Everyone brought a salad of some kind, we all ate and visited and were in position in time to watch the spectacle and it was awesome to say the least. We counted 427 Swifts going into our tower!!!!!!!"

On October 30, Olga reported that the Swifts were still there and some evenings there were close to 1,000 birds entering their tower .

The walls of their tower are insulated to keep the interior cool and the copper roof is to keep the rain out.

Cinder Block Tower
Photo by Philip Huey

Godley, TX.

This 17 ½ foot tall cinderblock structure was built next to a tin hay barn in 1996. It was not occupied this year "but had been used in years past – even the first year after completion."

Ledbetter, TX.

Melanie Pavlas sent a report on the kiosk tower at Cooper Farms Natural Science Laboratory. "The Swifts are sitting on the same (corner) nest as last year."

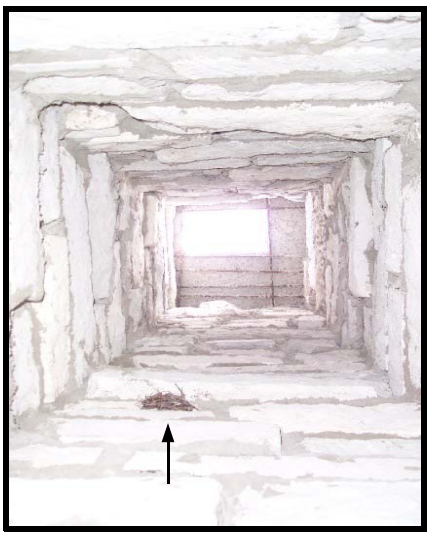
St. Paul, NE.

Peter Berthelsen "had three swifts give a "fly by" of my tower, but no one has taken up residence yet this spring. I'm just completing construction of a second bigger and better tower. That will give me a total of two 16' towers on my residence."

Limestone Block Tower
Photo by Melanie Pavlas

Dripping Springs, TX.

This exquisite tower was completed in April. It stands 12 feet tall and is constructed of natural limestone rock. A pair of Swifts claimed it as their own in May and built their nest on the Southeast wall.



First Nest in Limestone Tower
Photo by Melanie Pavlas

More Here and there...

Kiosk Tower
Balcones Canyonlands National Wildlife Refuge
Photo by Paul Kyle

Lago Vista, TX.

This kiosk tower was completed on May 8 while Swifts kept a watchful eye on our progress. It stands at the refuge operations center of the Balcones Canyonlands National Wildlife Refuge. Refuge Biological Technician Bill Reiner reported on June 7: "Yesterday we had our first confirmed visitor. My colleague Eddie Hertz noticed a swift dive into the tower early in the afternoon. We watched for several minutes but did not see it leave. About an hour later, as I and a couple of other refuge staff walked by the tower, a swift flew out. I don't know whether it was the same bird, or whether it had been there the whole time, but it was definitely in there." A nest and 4 hatched eggs confirmed occupancy.

Installing insulation, a second skin and new predator guard on the Jandarosa Tower
Photo by Georgean Kyle

Driftwood, TX

Steve Janda reported obvious swift activity around his newly renovated tower. This tower was one of the first ones built for the Nest Site Research Project, and remains one of our more successful installations.

Holt, MO.

The two wooden towers attached to Joyce and Bill Rosson's barn again attracted breeding Swifts. Both towers were first occupied on the same spring day and Swifts laid eggs on the same days. Both nests contained five eggs, all hatched, all fledged.
Joyce notes that fewer Swifts roost in their North tower than in the tower on the west side of the barn. "It is 1-3 degrees warmer in summer and 1-3 degrees cooler in the fall."

Vinyl Sided Tower
Photo courtesy of Richard Lyon

Canton, GA.

Richard "used the information that is online in the construction of this tower. The Vinyl siding was used because we had a fair amount we could get dirt cheap. There is an air gap between it and the plywood to let air vent up. This is actually its second year up, Swifts didn't do more than swoop at it last year. Just today (May 29) I noticed them going into the tower during the day – hours earlier than normal. So I am hoping nesting will follow soon."

Richard later reported that a pair had moved into the tower and raised four young.

Spicewood, TX

Chris Harte's 12' tower (installed in 2001) hosted a nesting pair for the first time.

Even More Here and there...

Coated Cinder Block Tower
Photo by Dan Howie

Matthews, NC.

Dan Howie's tower topped out at 16 feet. He used a Quikrete product called "Quikwall" to cover the exterior of the chimney all the way around. "It seals and also adds a fortification to the block. I also have a length of flue pipe to reduce the opening size down to 8" x 8"."

Door and vent detail on coated tower
Photo by Dan Howie

Students working on one of three new towers in Worhtington, OH
Photo courtesy of Carol Landis

Carol Landis spearheaded a project to construct three Chimney Swift Towers as part of the Linworth Alternative Program. She reports that much of the lumber and building materials were donated by local hardware and supply stores.

Staunton,VA.

Mary Penn sent "just a quick note to let you know we got our Chimney Swift tower up. While we were erecting it four very noisy Chimney Swifts flew by – it was very exciting!"

Bellaire, TX.

Fred Collins reported that "The Nature Discovery Center completed a tower this past fall and are expecting guests soon. Harris County Pct 3 Parks department is planning to build chimney swift tower kiosks at two of their new parks."

Michael Blessington and new 12' Tower at Trinity River NWR
Photo courtesy of Mike Blessington

Liberty, TX.

Biological Technician Michael Blessington, Refuge Manager Stuart Marcus and their staff completed this tower at the Trinity River National Wildlife Refuge in April.

Hoyt, KS.

Portia Allbert reported: "Our first swifts arrived on May 2. Three are here and they appropriated our fireplace chimney where they have lived for a number of years. Two on one side and one on the other side of the double chimney. They so far have completely ignored my new swift tower – all finished and ready. A bluebird has taken up the top of the tower as a perch to look for worms in the yard, I hope that doesn't bother the Swifts."

Columbia, SC.

John Cely from the Sandhills Research and Education Center states: "Where I come from negative data is as valuable as positive, so here's some negative news. We put 2 swift towers, based on your plans, up in the spring of 1999 in Colombia, SC. area but so far no takers. Had some birds flying over looking interested but that's all. Seems to me that the birds like to nest in very dark surroundings so after the first year, I put partial covers over the top of the tower."

Galveston, TX.

Gordon Nunn wrote…"about the tower I built on Alice O'Donnels place west of Galveston. Hard to believe but it has been 3 seasons now since it was built. An inspection the first year found a nest; the tower was used. …I did not check it the second season, just too many things going on. I cleaned it out and checked it yesterday (Feb. 23) with the following observations: there were two nests, one about 6" above the other. This is proof that the tower as built was used all three seasons it has been up. Nothing like success to decide how to build a tower. I was pleased with the physical condition of the Tower. The inside T1-11 is showing no visible decay. The outside plastic siding is holding up well. I suspect we will see several more years of usability. I am not an expert by any means, but I think the location of sun in the morning and shade from just past noon on is a clue to the success of this tower."

Please report information on your tower so we can share your input with all of our associates.

TOWER DESIGN UPDATES

The single most important problem with free-standing towers continues to be overheating — especially in the southern part of the Chimney Swifts' breeding range. We know from the work of Dr. Richard B. Fischer that the body temperature of Chimney Swifts is approximately 108° F. When the temperature inside a nest tower exceeds this temperature, the embryos will not likely survive. Without proper insulation, the inside of an exposed tower can rise several degrees above the ambient air temperature. Using data loggers we were able to determine that towers with only an airspace between the inner and outer walls tended to have temperatures that were 3° to 5° higher than towers that used foil-backed rigid foam between the walls.

Several of our associates have used vinyl siding on the outside of their towers, and we have also experimented with this material. It has a couple of definite advantages over wood siding: it is too slick for predators to climb — eliminating the need for a predator guard, and it provides an additional airspace — keeping the nest chamber cooler.

Finally, we recommend that anyone building a tower use 5/8" T1-11, and not the 3/8" material. The thinner product does not hold up over time.

A LITTLE EDUCATION CAN GO A LONG WAY…..

We receive many letters, phone calls and emails each year from individuals requesting information about Chimney Swifts. Some folks are curious, some are enamored, and some just cannot abide sharing their chimney with the birds. Following are a few topics and then responses following our efforts to spread the conservation message.

A couple wanted to cap their chimney...

"We have decided to leave the chimney open, especially since it is a 16" round one, little used, 20+ feet deep, with pairs nesting yearly. There were 2 broods this year. Thanks for the additional encouragement to stay status quo."….Wayne

The begging calls of the nestling swifts were becoming worrisome...

"Thank you very much for your reply…like many others (I am sure), I was not aware of the plight of these birds and will try very hard to appreciate their "song" this spring. Through your kind words, I now have a new appreciation for them, and will continue to let them use our chimney."….Annie

Nestling swifts had fallen into the fireplace...

"Thank you for responding right away. We decided to put the babies back up the chimney that evening. They were fully feathered with their eyes wide open. Everything went well, and we believe the mother has returned and is feeding them. We would love some additional information about Chimney Swifts, that way we can welcome our feathered friends properly in the future."….Nancy

A Swift Night Out

A Swift Night Out is a national effort to raise awareness about Chimney Swifts by drawing attention to the spectacle of fall roosts. Participants are asked to locate and monitor a communal roost on a particular weekend and report their observations. We then plot the sightings on our web site and report the observers' comments. Here are a few from last year's event:

"The roost is in a large chimney on the grounds of the Neuens Lumber Company in Fredonia. It stands between 20 and 30 feet high. It is in good condition. I believe the chimney is unused by the company at this point." Joan Sommer, Fredonia, WI.

"At an old industrial chimney in The Mill Center, 4,931 swifts were counted on Sept. 7, on Sept. 8, 5,232 birds entered." Carol Schreter, Baltimore, MD.

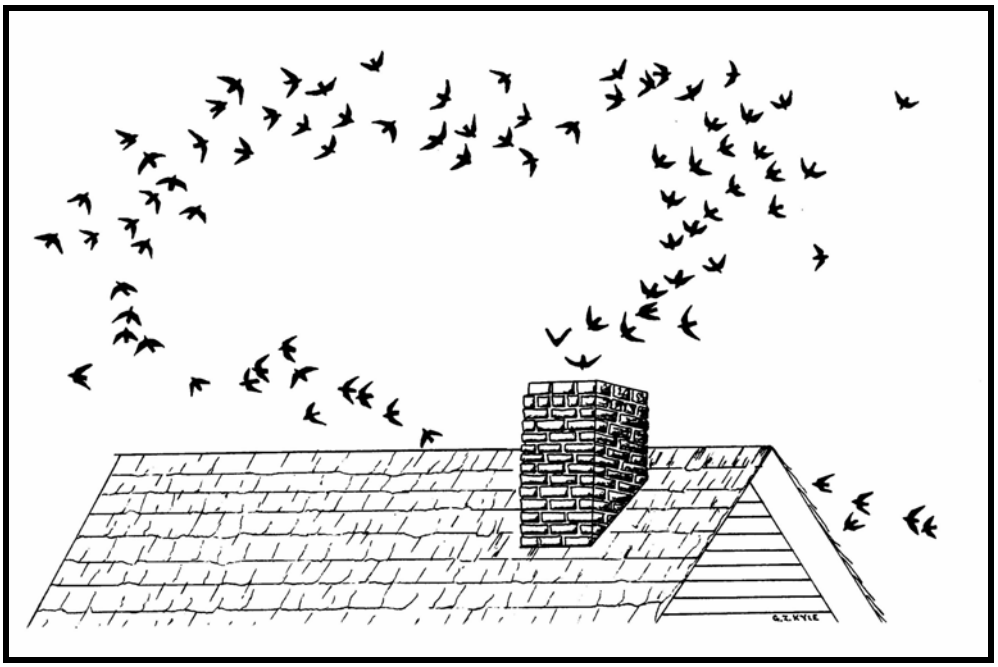
A chimney at the "Belvedere Elementary School had 650 swifts begin to enter at 7:38 and finish at 7:52." Larry Cartwright, Annandale, VA.

"On Sunday evening, Sept. 8, we observed at least 3400 Chimney Swifts enter a chimney at Luther Jackson Middle School in Fairfax, VA. The birds began entering at 7:35 and were all in by 8:05. We had visited this same site 3 weeks ago and estimated 3-400 birds, so the flock increased tremendously." Jay and Carol Hadlock, Herndon VA.

"The roost is a brick house chimney at a private residence. The house was built in 1852 and was the home of Colonel Robinson, Aide-de-Camp to Robert E. Lee." Mark Bebee, Atlanta, GA.

*For a complete list of sightings and reports, visit our website and click on **A Swift Night Out***

At the request of some of our more northern observers, we will be moving the date back by a couple of weeks. This year and from now on, the count will take place on Friday, Saturday and Sunday of the third weekend of August. This year the dates will be August 15, 16 and 17th. Spread the word and mark your calendars now!



Monitoring Chimney Swifts

Purple Martin landlords have become accustomed to interacting on a regular basis with their tenants. The sociable martins tolerate, and perhaps even expect, a large degree of human intervention during their nesting activities. Those of us who host Chimney Swifts must adopt a very different approach. If disturbed during the early stages of nesting, swifts will abandon a nest site. Therefore, monitoring must be a more delicate and "hands off" affair.

By remote observations at dusk, it will be possible to know if swifts are inhabiting a tower or chimney. This is when the swifts are most active around their nest site. Because it is usually difficult to actually view the nest, audio monitoring can be very informative. The sound of the raucous young being fed is an unmistakable indication of a successful nesting attempt.

For those who want to go the extra distance, modern technology now provides us with some excellent tools for monitoring the home life of Chimney Swifts. Several companies now sell miniature surveillance cameras that are ideal for observing swifts without disturbing them. These cameras can be hooked up to televisions, computers and VCRs, and are priced from as low as $50. Note: most cameras with built in infrared emit enough visible light to disturb the birds and are not recommended.

At the end of the season, the refuse in the bottom of a tower can tell much about the success of the season. Egg shells can be counted, and a the amount of droppings will indicate if a family of swifts was present.

What's for Lunch?

Dr. Richard B. Fischer examined more than 1,000 insects that he collected from the mouths of young swifts right after they had been fed by the parents in upstate New York. He found that:

"…the chief food items in frequency of occurrence were Diptera [mosquitoes, midges, flies], Homoptera [hoppers, spittle bugs, and aphids], Hymenoptera [ants], Ephemerida [mayflies] and Plecoptera [stoneflies]. These five orders accounted for approximately 95 percent of their [Chimney Swifts'] food. Other orders recorded were Coleoptera [beetles], Hemiptrera [bugs], Trichoptera [caddisflies] and Siphonaptera [fleas]. Spiders (Arachnida) were found on occasion…"

From samples that we have collected in Texas, we can corroborate Dr. Fischer's findings and add Isoptera (termites) to the known diet of Chimney Swifts. Most of the insects taken by Chimney Swifts are much smaller than those taken by Purple Martins. Chimney Swifts are opportunistic feeders that will take whatever small species of flying insects that are available in their feeding grounds.

A Century of Chimney Swift Research

For nearly 100 years, Chimney Swifts have not only fascinated ornithologists but frustrated attempts to study them. In the first third of the twentieth century, Althea Sherman devised a method to observe the private life of the Chimney Swift. Excerpts from her meticulous observations are detailed in Birds of an Iowa Dooryard. The original book was published posthumously in 1952. A more recent edition was made available in 1996 by the University of Iowa Press. Ms. Sherman was the first to design a "Chimney Swifts' Tower", and is the inspiration for all modern day Chimney Swift habitat construction.

Dr. Ralph W. Dexter studied the nesting and roosting behavior of Chimney Swifts in the air shafts of Kent State University in Kent, Ohio for his entire academic life. Only when his advanced age and failing health prevented him from climbing on the roofs did he cease his research. His numerous scientific articles provide remarkable insight into the year to year relationships among individual Chimney Swifts over their life span. Through his banding efforts, Ralph Dexter established the longevity of a Chimney Swift at 14 years — a record that has yet to be surpassed. Dr. Dexter's research was so closely associated with Kent State University that the university's seal bears the image of a Chimney Swift.

After fourteen years of study in upstate New York, Dr. Richard B. Fischer published his monograph entitled The Breeding Biology of the Chimney Swift in 1958. Dr. Fischer studied swifts in the atypical nesting setting of out buildings rather than chimneys. By building blinds he was able to study and, for the first time, photograph these elusive birds as they raised their young. Dr. Fischer's publication has been the gold standard for Chimney Swift research in North America for nearly 50 years.

Birds of North America
Chimney Swift Species Account Now Available

Dr. Calvin Cink and Dr. Charles Collins have completed the much anticipated species account for the Chimney Swift. This is the first major scientific publication on the species since Richard B. Fischer's 1958 monograph. Copies of the account (#646) are available from Buteo Books for $7.50 each plus shipping and handling. They can be contacted at 800-722-2460, sending an e-mail to allen@buteobooks.com, or writing to Buteo Books, 3130 Laurel Road, Shipman, VA 22971. Their fax number is: 434-263-4842.

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1206 West 38th, Suite 1105
Austin, Texas 78705

Visit the Driftwood Wildlife Association web site at: http://www.concentric.net/~Dwa

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

- ◊ track the spring movements of Chimney Swifts
- ◊ learn about wildlife rehabilitation
- ◊ download past issues of **Chaetura**
- ◊ order publications from Driftwood
- ◊ learn more about Membership in DWA

You can even watch a movie of the Observation Towers Swift roost!

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

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$ 10.00 Research Associateship
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