

Fla. Field Nat. 25(2):54-57, 1997.

VAUX'S SWIFTS OVERWINTER AT A ROOST IN APALACHICOLA, FLORIDA

DOUGLAS B. MCNAIR¹ AND THOMAS E. LEWIS²

¹Tall Timbers Research Station, Route 1, Box 678, Tallahassee, Florida 32312-9712

²St. Vincent National Wildlife Refuge, P. O. Box 447, Apalachicola, Florida 32329-0447

We first detected a flock of 42 Vaux's Swifts (*Chaetura vauxi*) on 19 November 1994 as they called frequently and circled for approximately 45 min high over the business district of Apalachicola, Florida. The flock, usually 30-40 birds with a maximum flock size of 49 on 18 December, declined sharply in late March, and the last three birds were seen on 21 April 1995. We also observed a small group of Vaux's Swifts during the winter of 1995-96.

Webber and Collins (1995) cautioned that Vaux's and Chimney (*C. pelagica*) swifts can occur in Florida at the same time based on their 7 April report of Vaux's Swifts in Gainesville. We also document that these species can occur together in early spring for about a month (23 March-21 April). In autumn these swifts may occur together in early to mid-November, although this has not yet been confirmed (Robertson and Woolfenden 1992, Stevenson and Anderson 1994, Webber and Collins 1995, our data). The large flock of Vaux's Swifts that we first detected in Apalachicola on 19 November 1994 is the earliest date for Florida. Our latest autumn report of Chimney Swift in Apalachicola is 17 November 1995. In Louisiana, Lowery (1939) captured a Vaux's Swift as early as 14 October, when Chimney Swifts were numerous.

During winter 1994-95, the large flock of Vaux's Swifts generally approached and descended into the chimney to roost at dusk differently than the few birds observed during the winter of 1995-96. In 1994-95 the swifts typically circled 100-500 m above the chimney in a horizontal plane high over town for 10-20 min. They called fairly frequently, especially on warm days. We often first located the birds by hearing them. Eventually, the circling radius contracted to 50-100 m, the flock usually feinted entrance into the chimney a few times, then descended, as a group, into the chimney within about 15 sec. The last few stragglers entered the roost a few minutes later. In 1995-96 the few birds present called rarely as they descended into the roost chimney. These birds were never observed for more than 4 sec.

The differences we observed in roosting behavior at the same chimney during different winters may be a function of differences in flock size. Bull (1991) described somewhat similar roosting behavior at several large summer roosts in natural cavities (large hollow trees) in old-growth forests of eastern Oregon. Thompson (1977), also in Oregon, described roosting behavior of a pair of Vaux's Swifts, which nested in a chimney, that was very similar to our small flock.

Vocalizations of Vaux's Swifts are generally more pronounced when in groups (Bull and Collins 1993a). However, data on the frequency of vocalizations of small flocks during winter in the Southeast are conflicting. Lowery (1939) did not mention vocalizations by Vaux's Swifts wintering in Louisiana. In contrast, the small flocks that wintered in Tallahassee during two consecutive winters were reported to vocalize frequently (Graves 1981, Stevenson and Anderson 1994), as did a small flock flying overhead in Gainesville (Webber and Collins 1995). Our data from Apalachicola are mixed; our larger flock in the winter of 1994-95 vocalized fairly frequently, while our small flock in the winter of 1995-96 rarely vocalized at all.

The first birds usually began roosting about 10-15 min before sunset; the last birds entered the roost on average 5 min after sunset ($n = 21$). Breeding Vaux's Swifts in Ore-

gon roosted earlier, from 0.5-1 hr before sunset until dusk (Bull 1991). Our data agree with Bull (1991) that Vaux's Swifts roost earlier on overcast or colder days than on clear or warm evenings, yet our differences were not pronounced.

We also observed Vaux's and Chimney swifts roosting together once the Chimney Swifts arrived on 23 March 1995. Numbers of Chimney Swifts varied from 75-350, while the number of Vaux's Swifts decreased from 9 to 3 on 21 April, the last date they were detected. The Vaux's Swifts called infrequently, perhaps because of their small flock size, but were readily distinguished from the numerous Chimney Swifts because of their smaller size and different flight behavior. The Vaux's Swifts generally maintained their separate flock identity though they frequently circled the roost site with the Chimney Swifts. In general, they roosted earlier than most of the Chimney Swifts.

We have virtually no data on Vaux's Swifts in Franklin County away from the roost in Apalachicola. On several overcast and windy days, small flocks were observed flying low over town, both in the morning and early evening. Otherwise, we never detected Vaux's Swifts in town away from the roost. The Vaux's Swifts approached the roost site from the west-northwest, either alone or sometimes loosely associated with Tree Swallows (*Tachycineta bicolor*).

In the winter of 1995-96, we detected three Vaux's Swifts in late November, but only one remained thereafter. We captured this individual in an unused chimney of the town hall at Apalachicola, Franklin County, Florida on 26 Jan 1996. This bird circled high over the business district of Apalachicola several times the morning of 27 January after it was released, but was not detected thereafter. Its mass on 26 Jan (1825 hr) was 19.4 g and on 27 Jan (0730 hr) was 17.8 g, an overnight loss of 8%. Other data were: fat class: 0; body length: 116.0 mm; wing length (chord/maximum flattened): 111.5/115.0 mm; tail length (central rectrices including spines): 37.2 mm; tarsus: 10.8 mm; and bill length (base of forehead/anterior edge of nostril): 5.5/3.4 mm. The plumage was fresh and unworn, including sharp tips on all spines of the rectrices. The green iridescence on the wings was extensive, observable only in good light. Molt was complete except for primary 10, which was partially sheathed on the basal one-third of the feather (Figure 1). We detected no parasites. The hallux on the left foot was atrophied; the dwarf nail was pale pinkish, not lead-colored. The chin, throat and upper breast were off-white for 25 mm along the body axis and sharply demarcated from the brownish-gray middle breast (Figure 1). The rump and upper tail coverts were brownish-gray, noticeably paler than the back and rectrices.

Mensural data, especially the short wings and tail, confirm that the swift we banded was a Vaux's, not a Chimney Swift (Fischer 1958, Bull and Collins 1993a, 1993b, Chantler 1993). This is the second verified record for Florida. In hand three plumage characteristics, the paler rump and upper tail coverts compared to the back and rectrices, the sharply demarcated whitish chin, throat, and upper breast compared to the rest of the undersides, and the green iridescence on the plain brownish gray wings separate Vaux's from Chimney Swift (Bull and Collins 1993a, Chantler 1993). Only the whitish chin, throat, and upper breast was somewhat discernible in the field in the Vaux's Swifts we observed in Apalachicola. However, we are not confident that this mark could reliably separate all Vaux's from Chimney Swifts in the field, despite our numerous observations.

Apart from vocalizations, the most reliable field mark in our opinion was the proportionally shorter wings of the Vaux's Swift compared to the longer more scythe-like wings of the Chimney Swift. This imparted an impression of proportionally smaller size and faster flight in Vaux's. With experience, even in the absence of Chimney Swifts, the smaller overall size of the Vaux's Swift was fairly obvious.

The bird we banded was presumably an adult. Juvenile swifts do not molt remiges or rectrices during their first autumn. Our bird was molting p10. In contrast, the definitive prebasic molt is complete. Vaux's Swifts breeding in Oregon complete their prebasic molt prior to starting autumn migration (Bull and Collins 1993b). Thus, the individual we



Figure 1. Vaux's Swift, Apalachicola, Franklin Co., 26 Jan 1996. Extended fresh wing shows that remige molt is complete except for primary 10, which is partially sheathed on the basal one-third of the feather. The chin, throat and upper breast is off-white for 24.5 mm along the body axis and sharply demarcated from the brownish-gray middle breast. Photo by T. E. Lewis.

banded presumably came from another, possibly more northern population, in which this molt is arrested during migration and completed on the wintering grounds (Bull and Collins 1993a).

Despite mensural and plumage data, we were unable to determine whether the bird we banded was of the migratory race *C. v. vauxi*, rather than *C. v. tamaulipensis*, which is possibly migratory (Bull and Collins 1993a, Chantler and Driessens 1995).

Webber and Collins (1995) documented the first verified record (recordings of vocalizations) of Vaux's Swift in Florida. They also summarized earlier data, including the first accepted sighting (Graves 1981). We provide the first photographic documentation of Vaux's Swift in Florida. We also recorded vocalizations of Vaux's Swifts at the same site during the previous winter (11 December 1994); sonograms from filtered versions of these recordings verify they are from Vaux's Swifts (T. Webber, *in litt.*; pers. exam.). These recordings and sonograms are archived at the FMNH.

We provide additional information on Vaux's Swifts in northwest Florida based on observations of roosting behavior of a large flock in winter 1994-95 and of a few birds in winter 1995-96. These observations augment data collected earlier by Graves (1981) and Webber and Collins (1995). Our observations also include information on Vaux's and Chimney swifts roosting together in the same chimney from late March to mid-April 1995.

We thank the City of Apalachicola and G. Power for granting us access to the roofs of their respective buildings. C. T. Collins provided us with an unpublished bibliography on Vaux's Swift. T. Webber produced sonograms from our recordings, which are on BLA

Master Tape No. 1395, FMNH). The photograph for figure 1 and several other photos are archived at Tall Timbers Research Station (TTRS P584-86). We thank E. L. Bull, C. T. Collins, and T. Webber for their comments.

LITERATURE CITED

- BULL, E. L. 1991. Summer roosts and roosting behavior of Vaux's Swifts in old-growth forests. *Northwestern Nat.* 72:78-82.
- BULL, E. L., AND C. T. COLLINS. 1993a. Vaux's Swift (*Chaetura vauxi*). In *The birds of North America*, No. 77. (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.
- BULL, E. L., AND C. T. COLLINS. 1993b. Nesting chronology, molt, and ectoparasites of Vaux's Swifts in northeastern Oregon. *Avocetta* 17:203-207.
- CHANTLER, P. 1993. Identification of western Palearctic swifts. *Dutch Birding* 15:97-135.
- CHANTLER, P., AND G. DRIESSENS. 1995. Swifts: A guide to the swifts and treeswifts of the world. Pica Press, Sussex, England.
- FISCHER, R. B. 1958. The breeding biology of the Chimney Swift *Chaetura pelagica* (Linnaeus). *New York State Mus. Sci. Serv. Bull.* No. 368.
- GRAVES, G. R. 1981. First sight record of Vaux's Swift in Florida. *Florida Field Nat.* 9:67-68.
- LOWERY, G. H., JR. 1939. Vaux Swift in Louisiana. *Wilson Bull.* 51:199-201.
- ROBERTSON, W. B., JR., AND G. E. WOOLFENDEN. 1992. Florida Bird Species—An Annotated List. *Fla. Ornithol. Soc. Spec. Publ.* No. 6, Gainesville.
- STEVENSON, H. M., AND B. H. ANDERSON. 1994. *The Birdlife of Florida*. Univ. Press Fla., Gainesville.
- THOMPSON, B. C. 1977. Behavior of Vaux's Swifts nesting and roosting in a chimney. *Murrelet* 58:73-77.
- WEBBER, T., AND C. T. COLLINS. 1995. Recordings verify that Vaux's Swifts visit Florida in winter. *Florida Field Nat.* 23:25-29.