

Two broods are evidently raised, as an immature bird, in company with an adult, was flushed on August 9. The nighthawks were noticeably less numerous during the latter part of the summer, and it is possible that the males and the young of the first brood left in July or earlier.

The flight of the Texas Nighthawk gives the impression of ease to a greater degree than that of any other of our smaller birds. While not slow, it appears leisurely and is frequently varied by periods of gliding. The large expanse of wing gives great buoyancy and the bird seems to float through the air almost without effort, while a turn of the wing serves to change its course at an abrupt angle. The Texas Nighthawk flies at a much lower altitude than is the usual habit of swallows and swifts. While hunting it never ascends to any great height, and often skims close to the ground, passing among the vegetation. In the evening its activities begin about sunset or earlier, usually ceasing before dark, and in the morning it is apt to remain in the air for some time after sunrise. It may sometimes be seen hunting at mid-day, especially in cloudy weather. The nighthawk displays some curiosity and often swoops down within a few feet of one's head. Even at that distance the flight is entirely inaudible.

In general the vocal utterances of the Texas Nighthawk are of three kinds: first, a low soft cluck, repeated slowly; second, a louder, querulous, nasal cry, repeated more rapidly and used when two or more of the birds are together; third, a series of throaty staccato notes delivered in monotone so rapidly as to be almost continuous, sustained for several seconds at a time and resumed after a short pause as if for breath. This trill is sometimes given from the ground, and very frequently while flying. It is used only when the birds are undisturbed and is not ordinarily heard at close range. While the tone is soft, the carrying power is great, and sometimes on summer evenings when several of the nighthawks are about, the air seems filled with an indefinable vibration.

In the San Gabriel Valley the nighthawks arrive early in April and usually leave before the end of August, an individual rarely remaining until September. They migrate as far south as Colombia, where the Texas Nighthawk has been reported by Dr. F. M. Chapman (Bull. Am. Mus. Nat. Hist., xxxvi, 1917, p. 273) as one of the very few land birds of the Western United States wintering in that country.

Los Angeles, September 22, 1923.

CHANGING HABITS OF VAUX SWIFT AND WESTERN MARTIN

(WITH FOUR PHOTOGRAPHS)

By WILLIAM L. and IRENE FINLEY

THE Chimney Swift of the East is a bird that formerly nested in hollow trees or caves; but as the country settled up and there were many chimneys the birds acquired the habit of dropping down into the open flues and gluing their nests on the side amid the soot about eight or ten feet from the top.

It is a rare thing to find the nest of the Vaux Swift (*Chaetura vauxi*) of the Pacific Coast, counterpart of the Chimney Swift of the East. Occasionally during the summer time, I see some of these birds flying over my home. I have never seen them near the ground. It is a bird easy to recognize because of its rapid bat-like flight

and the suggestion of an arrow going through the sky. I have frequently seen them in flight in the coast mountains of Oregon, as far north as the Canadian border and in other parts of the Pacific Northwest, but the past summer is the first time I have seen one of their nests. The birds ordinarily nest by dropping down into a hollow cottonwood or a partly burned out old fir stump. Mrs. Florence Merriam Bailey says in her Handbook that it will be interesting for observers to watch the birds and see how soon they acquire the habits of the more civilized Swift.

It will be an interesting story to watch both the Vaux Swift and the Western Martin (*Progne subis hesperia*) follow the path of civilization as our big trees and old stumps gradually disappear. I think I have seen a decided change in the Western Martin during the past twenty-five years. Years ago I saw this bird building high in the holes of tall fir snags in the Willamette Valley and along the coast of this state. I once saw a small colony of five pairs nesting in some tall fir stumps a few miles south of Portland. I climbed to one of the nests and found a set of five eggs. The hollow of the cavity was lined with green, but dry, leaves, giving the appearance that the bird had plucked these, green from the trees. This was over twenty-five years ago. In more recent years, I have had reports of Western Martins building in and around buildings at Port Townsend, Washington, and other cities, and I have seen them nesting in the crevices of buildings at Astoria and St. Helens, Oregon. Some day I expect to see a colony of Western Martins around a bird house, like the Purple Martin of the East, living in a rather civilized, or perhaps I should say a rather civilized, way. Has anyone seen Western Martins nesting in bird houses?

I have always expected to see a pair of Vaux Swifts nesting in a chimney as their eastern cousins do. In the Oologist, Volume xxvi, No. 5, May 15, 1909, Mr. Stanley Jewett records Vaux Swift nesting in the unused chimney of a farm house on Government Island in the Columbia River. I know of no such record in this part of the country since that time, until on August 7, 1923, when I went out to Wilsonville, Oregon, some twenty miles south of Portland, on the Willamette River, and saw a pair of civilized Vaux Swifts.

At Wiedemann Brothers' nursery, is an engine house with a metal smokestack sixty feet tall and thirty inches in diameter. The lower end of the flue broadens out and opens into the front of the boiler. A pair of Vaux Swifts dropped down the metal flue sixty-two feet and built their nest on the front of this metal boiler. Chapman says: "The nest of a Chimney Swift is generally about ten feet from the top." The Vaux Swift is a western bird and perhaps has a characteristic way of doing things. This pair had taken to civilization and they went the limit from top to bottom.

Mr. Wiedemann did not find the nest until he heard squeakings in the boiler and thought some bats had taken possession. Opening the metal doors of the boiler, there he saw the parent Vaux Swift with her four young birds. He saw her go and come and even caught her, but she did not object, for when she flew out of the door she was soon back through the top of the stack with more food.

I stood on a board with the boiler doors open and an electric light in my hand and looked into the nest. It was two feet below the stack itself where the opening broadened out. The nest, as much as I could see of it at the time, looked very flat. It seemed to be made of short pieces from dead oak twigs. Some of the twigs still had moss or lichens clinging to them. The nest, of course, was built like an



Fig. 5. SMOKE STACK AT WILSONVILLE, OREGON, AT THE BOTTOM OF WHICH A PAIR OF VAUX SWIFTS NESTED.

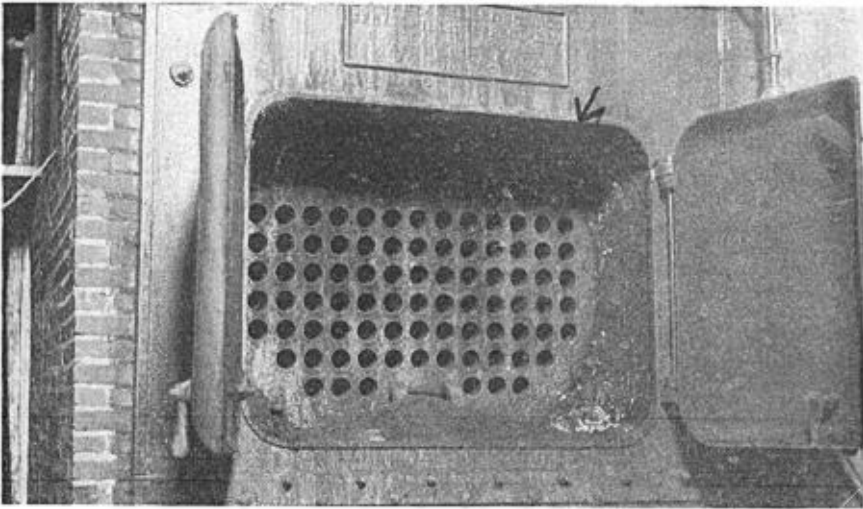


Fig. 6. LOCATION OF NEST OF VAUX SWIFT JUST BELOW POINT OF ARROW, FASTENED TO SIDE OF THE BOILER; DROPPINGS FROM THE NEST SHOW BELOW.

ordinary Chimney Swift's nest, the little sticks glued together with sticky saliva. The four young birds were about two-thirds grown and crowded it to the very limit. In fact, the nest seemed very small.

I stood outside at twelve o'clock, noon, and saw one of the parent Swifts come flitting along just above the chimney top, suddenly swerve and drop in. He, or she, whichever it was, was feeding every fifteen or twenty minutes. I went below and with the aid of the electric light, I could see the bird feed her young. Sometimes she would light on one side of the nest and sometimes on the other, to feed. Once I saw her clutch the edge of the nest and brace herself with her tail

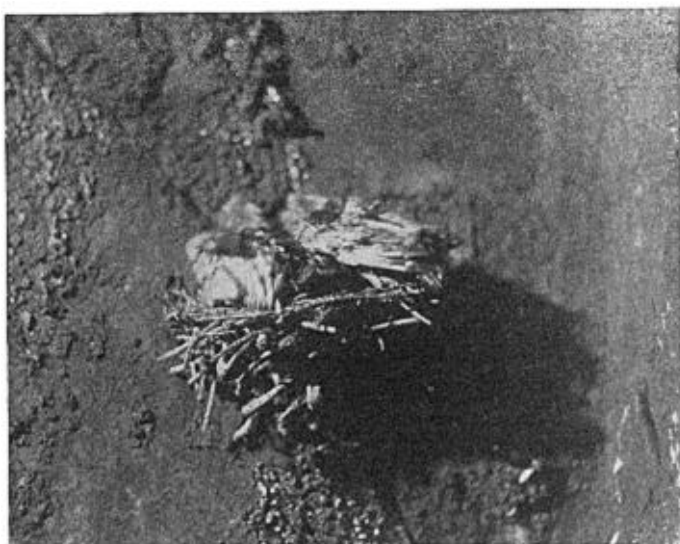


Fig. 7. NEST OF VAUX SWIFT, CONTAINING FOUR YOUNG BIRDS; LIGHTED BY 100-WATT ELECTRIC BULB, TAKEN WITH 3A GRAFLEX CAMERA, ABOUT 10 SECONDS EXPOSURE.



Fig. 8. YOUNG VAUX SWIFT TAKEN FROM THE NEST FOR A PHOTOGRAPH, AUGUST 7, 1923.

underneath, and she jabbed her bill in the mouth of a young bird and fed by regurgitation. As she started up the long climb, she quivered her wings, hooked her sharp toes in the sooty side of the stack and walked right up as if she were going up a ladder. About ten feet up was a damper about three-fourths closed. This was rather an obstacle to get by, but it perhaps also served as a resting place coming down.

The young Swifts had a loud squeaking note and they were not backward about using it. I tried several times to take a picture with the aid of artificial light, giving a time exposure, but each time the shutter opened, they started their dinner call. They were on edge for something to eat all the time. They didn't wait for the flutter of wings coming down the tall stack, but at the slightest sound they began to squeak. By August 18, the four young, clinging to the side of the flue, had climbed on above the damper where they could no longer be watched.

*Jennings Lodge, Oregon,
September 15, 1923.*