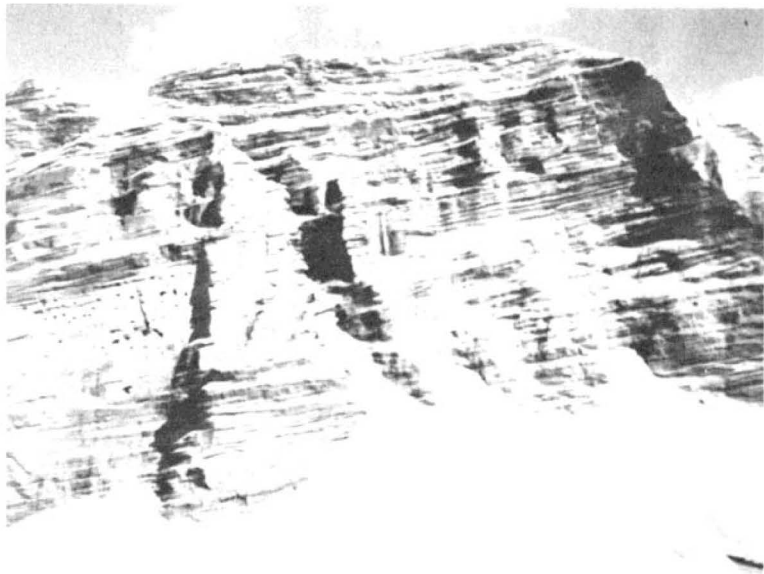


SUCCESSFUL NESTING OF THE BANK SWALLOW
IN OKLAHOMA

BY PAUL W. WILSON

For the past five years, while teaching biological science at the public school in Picher, Ottawa County, northeastern Oklahoma, I have known that Bank Swallows (*Riparia riparia*) and Rough-winged Swallows (*Stelgidopteryx ruficollis*) were summering in the area, but not until the spring of 1980 did I focus my attention upon the two species. Both had, I knew, been nesting in town, not in earthen banks along streams but rather in what were known locally as "chat piles" — massive, heavily eroded heaps of coarse gravel mine tailings dating back to 1915, when mining for lead and zinc was an important



BANK SWALLOW CHAT PILE IN PICHER,
NORTHEASTERN OKLAHOMA

Photographed by Paul W. Wilson on 31 March 1980, about the time the swallows returned from the south. The chat pile is 60 feet high. The picture shows only a few of the 138 burrow-entrances that Wilson counted at this chat pile on 31 March.

industry at Picher. Two chat piles about 500 yards apart, each with vertical, clifflike face, seemed to meet the birds' nesting needs especially well. The cliff at one pile was about 40 feet high, at the other about 15 feet high. Here the many Bank Swallows had nested in dense colonies, the much less common Roughwings in scattered pairs. Entrances to Bank Swallow burrows had often been only a foot or so apart, but no two Roughwing burrows had been at all close to each other.

Since successful nesting of the Bank Swallow in Oklahoma had nowhere been fully documented, I decided to watch that species closely. Just when it arrived from the south in 1980 I do not know, but two Bank Swallows were observed by John Sparkman on 28 March and on 3 April of that year I saw six Bank Swallows at one of the chat piles. The birds were fluttering about the burrow entrances in twosomes, as if paired. One colony on that date was obviously larger than the other: at that chat pile I counted 138 burrow entrances. The birds at both colonies might, for all I knew, have been doing some renovating or excavating on 3 April, but most of this important work they did later -- between 15 and 22 April. By the end of April over 200 Bank Swallows were in the immediate vicinity of the two colonies.

By 6 May virtually all nests must have been finished, for that day I saw no bird carrying dead grass, feathers, or other nest material. Indeed, some full clutches of eggs probably had been laid by 6 May. Meanwhile, aided by Everett M. Grigsby and Floyd H. Dunning III, I put up mist nets in which to capture the swallows for banding. I made no attempt to examine nests repeatedly, for I was much more interested in getting as many birds banded as possible than in ascertaining just when egg-laying began, whether one egg was laid per day, etc. My helpers and I did determine, however, that nine occupied burrows were from 21 to 38 inches deep (averaging 32.6 inches) and that the lowest of the burrows were about 18 feet above the talus at the embankment's base. In his exhaustive "Studies of the Bank Swallow," Dayton Stoner (1936, Bull. N.Y. State College of Forestry at Syracuse University, 9:185) reported an average depth of 28 inches (minimum 15 inches, maximum 47 inches) for "89 occupied burrows" at a large colony in the Oneida Lake region of New York.

Mist nets hung not far from the burrows' entrances caught 159 adult swallows between 6 May and 5 June. My helpers and I made no attempt to band nestlings before they left the burrows. On 5 June fully fledged young began leaving their nests and seven of these flew into the nets. The nets continued to catch both young and old birds until 15 July, but many young birds that fledged in good order did not fly into the nets. Most of the fledging took place between 17 and 28 June. Many birds were recaptured, but only one adult captured at one chat pile was recaptured at the other chat pile.

Food in the form of flying insects must have been readily obtainable for both colonies. Most feeding of young took place early in the morning and late in the afternoon. On the afternoon of 13 June my helpers and I counted the food-visits of the parent birds at one burrow, ascertaining that at that time of

day the young were fed an average of 4.5 times per five-minute period — in other words about once per minute. That same day we counted 128 food-visits during one five-minute period at a section of the colony that had about one-third of the burrows.

At the larger colony (where I had counted 138 burrow entrances on 31 March) I counted 264 burrow-entrances at the end of June. Many of the 264 burrows were shallow. I know that at many burrows no young were reared.

I observed some Rough-winged Swallows using burrows dug by Bank Swallows during the previous year. In Michigan, Lunk (1962, Publ. Nuttall Ornith. Club No. 4, p. 132) found that Roughwings were "to a considerable extent dependent for nest sites upon the excavations of the Bank Swallows . . ." At both chat piles I saw Roughwings, and during the first part of April they were more common than Bank Swallows. The Roughwings nested in the highest and most isolated portions of the two chat piles, which made mist-netting particularly difficult. Our information on them is therefore limited.

We managed to band a total of 253 adult Bank Swallows, of which 102 were recaptured, and 118 young birds, only 18 of which we caught again.

BOX 486, R.R. 1, FAIRLAND, OKLAHOMA 74343, 9 AUGUST 1980.

THE SWAINSON'S HAWK IN SOUTHWESTERN OKLAHOMA

BY JACK D. TYLER

During a recent 13-year period (1967-1979) my several students and I failed to find a single occupied nest of the Swainson's Hawk (*Buteo swainsoni*) anywhere in southwestern Oklahoma, this despite (a) the species' being fairly common throughout the area in summer and (b) our being afield widely and often. Sutton (1967, Oklahoma Birds, Univ. Oklahoma Press, Norman, p. 110) stated that *B. swainsoni* breeds throughout western Oklahoma, naming Comanche as a county in which nesting had been observed, though Tyler (1979, Birds of southwestern Oklahoma [and supplement], Stovall Mus. Sci. & Hist., Univ. Oklahoma, Contrib. 2, p. 17 and Contrib. 3, p. 12) cited only two breeding records for the whole of southwestern Oklahoma, one of a nest (30 feet up in a cottonwood along Cave Creek 2 miles west and 1 south of Reed, Greer County) at which J. D. Ligon collected one of two small chicks (UOMZ 4165) on 12 June 1960, the other of a nest (in a tree 3 miles west and 2½ south of Eldorado, Jackson County) at which one young bird fledged in the summer of 1974 (*vide* J. W. Tinsley).

In the spring of 1980, my students and I found a nest. On 1 May of that year, Edward Sands, his wife Phyllis, Michael Granger, and I happened to see a Swainson's Hawk perched in a mesquite tree about 6 miles east of Snyder, Kiowa County, Oklahoma. As we were watching it, the bird flew from its perch to a dead mesquite close by and, while still flying, broke off a slender branch which it carried to the top of an elm about 50 yards away. So dense was the elm's leafage that the hawk disappeared in it; but when I climbed up I found a loose platform of 30 to 40 pencil-sized twigs in a crotch about 20 feet above