

FOURTEEN-YEAR LIFE HISTORY OF A BANDED CHIMNEY SWIFT

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A long-term banding study of the Chimney Swift (*Chaetura pelagica*) was begun in 1944 on the campus of Kent State University, Kent, Ohio, from which a number of life histories of selected individuals have already been published. Two birds were traced over a period of 10 years (Dexter, 1956, 1961), one was traced for 13 years (Dexter, 1968), and several ranging from 8 to 11 years (Dexter, 1969). The swift with the longest recorded history in this study is male no. 24-167605. What is known of its annual life history over 14 years is summarized here, not only as the longest one on record, based on continuous observations, but it illustrates many aspects of the breeding and nesting life history of this species.

At the end of the nesting season in 1957, the female parent and the four juveniles raised in air shaft E6 left the campus by mid-September. On 14 September only the male remained in that air shaft. Two days later it was retrapped with an unbanded bird which was then banded as no. 24-167605, which did not appear to be a juvenile, and later proved to be a male. Both birds left the campus within two days. On 26 May 1958, -05 was captured as a return from air shaft A5 with swift no. 21-128548 which had nested in that shaft in 1957. These two became mates and nested on approximately the same site used the previous year, 8.5 ft down on the north wall, starting their nest on 1 June and completing it five days later. The last record of -05 was made 28 September when he was roosting alone in his nesting shaft, but soon departed on the fall migration.

On 30 April 1959, swift -05 was captured in shaft A5 as a return with no. 24-167695 (banded the previous spring), but female no. -95 did not nest until she joined -05 the following year. These two were mated in shaft A5 and began their nest 19.7 ft down on the south wall on 8 June. Shortly before nest building, the female no. -95 spent part of her time in the adjacent shaft A4, but soon rejoined the male in A5. Three nestlings were produced, but on 18 July a heavy rain washed the nest from the wall and the nestlings were destroyed. The male then remained alone in that shaft, while the female joined a group of six swifts roosting in shaft I3.

When no. -05 was captured as a return on 7 May 1960, he was roosting in shaft C3 with swift no. 21-128598 which had nested in shaft C3 since 1957. This pair immediately moved into shaft A5 where -05 had nested since 1958. No. -98, however, soon departed, and -05 was joined by a newly banded bird, 25-137486. These became mates in A5 that season. On two occasions, this pair had a brief visitor roosting with them. Following the nesting season, the male swift that had nested in shaft E1 joined the pair in A5, and the three remained together between 18-26

September. The mate of -05 departed after 1 October, and -05 remained alone on 5 October as the last swift on campus.

No. -05 was captured as a return from shaft A5 on 9 May 1961, with its former mate no. -86. On 11 June they started nest building, and the first egg was laid within a week. On 18 June the egg disappeared, but the next day a replacement egg was laid. Three more were subsequently added to the clutch. On 16 July a heavy rainstorm washed the nest from the wall (Dexter, 1952, 1960). The mates remained in their nesting shaft for a few days, after which the female departed. For the evening of 17 September no. -05 roosted in shaft P3 with the mates of that shaft, the female that nested in G4, and two non-nesting birds. In the evening of 26 September, the mated pair from shaft E1 roosted with no. -05 in A5 to which he had returned.

In 1962, swift no. 25-137509 joined no. -05 in shaft A5, where they began their nest on 7 June. After the nesting season, this pair roosted in shaft Q2 during the night of 14 September along with three others, including the female (24-167695) that had nested in Q2 and two non-nesting swifts which were probably juveniles. In the night of 25 September, and possibly for the two preceding nights, the mates of A5 were again roosting in their nesting shaft and with them was the female from shaft Q2. The latter female had been the mate of no. -05 in 1959, as noted above. These two were captured as returns on 1 June 1963 from shaft Q2, where -95 had nested since 1960, and with an immature bird which may have been an offspring of -95 the previous year. These three formed a non-nesting threesome for the season.

On 30 May 1964, swift no. -05 was again captured as a return from shaft Q2 with female no. 24-167695. (They had been mates in shaft A5 in 1959 and remained in a non-nesting threesome in shaft Q2 in 1963.) In 1964, however, they were not joined by a visitor, and they succeeded in nesting together. The nest was started on 9 June, and the first egg was laid nine days later. Four eggs were laid as usual in a nest 39.5 ft down on the south wall. This was the greatest depth at which -05 and his mate ever nested (range for all swifts, 5.6–53.2 ft; average 20) and was the only nest in the colony to survive through the winter until the next nesting season. In 1965, no. -05 and his former mate again nested in shaft Q2, but began nesting somewhat earlier as expected for swifts in this colony. Nest building began 25 May, and the first egg was laid on 1 June.

When no. -05 returned on 29 May 1966, he was taken again from shaft Q2, but with a new mate, female no. 24-167608, which formerly nested in shaft S1 since 1958. At first, this female had returned to her former nesting shaft S1 with her mate over the past eight years, but soon joined -05 in shaft Q2 to replace his mate which did not return. Only two of their eggs hatched. The last swift remaining on the campus that year was seen in shaft Q2 on 8 October and was probably no. -05.

The next year no. -05 returned to Q2 and nested with a new mate, no. 28-141742. The former mate of -05 did not return. No. -42 had

TABLE I.
Summary of nesting history of Chimney Swift no. 24-167605 (1957-1970).

Year:	57	58	59	60	61	62	63	64	65	66	67	68	69	70
Pre nesting roosting in shaft:		A5	A5	C3 A5	A5	A5	Q2	Q2	Q2	Q2	Q2	Q2	Q2?	P3
Nested in shaft:		A5	A5	A5	A5	A5	—	Q2	Q2	Q2	Q2	Q2	—	—
Mate:		21-128 548	24-167 695	25-137 486	25-137 486	25-137 509	—	24-167 695	24-167 695	24-167 608	28-141 742	28-141 742	—	—
Seasonal visitors (Non-nesting threesome):							24-167 695							
Temporary visitors:							25-137 487							
							21-194 766							
Date of start of nest:		1-6	8-6	—	11-6	7-6	0	9-6	25-5	24-5	5-6	—	0	0
Distance of nest from top, and wall used (N = north; S = south):		8.5 N	19.7 S	?	10.7 N	19.5 S	0	39.5 S	32.5 S	29.5 S	28.8 N	29.2 N	?	?
Date of first egg:		—	—	—	17-6	—	0	18-6	1-6	3-6	—	2-6	0	0
Post nesting roosting in shaft (other than nesting shaft):		E6	—	—	P3	Q2	0	—	—	—	—	—	S1	—

nested in shaft R2 in 1966, but her mate did not return. Again, no. -05 and his mate produced only two juveniles. In 1968, the same pair remained mated in shaft Q2. Their nest was the first completed that year in the campus colony (finished on 1 June), and the first egg was laid the next day. Whereas the usual set of four eggs was laid, only three juveniles were produced.

On 3 May 1969, three swifts were found in shaft Q2. One of these proved to be female 28-141742 which nested with -05 in that shaft during 1967-68. The second was a resident but unmated bird (28-141767) until this season. The third swift did not leave the air shaft, and the trap was finally removed to prevent starvation. Possibly this bird was -05 because it had been an occupant in this shaft over the past six years. No. -42 and no. -67 moved into shaft P3 where they became mates for the season. Nesting did not take place in shaft Q2 that year, and swift no. -05 was not captured until late in the season when he was found roosting with eight other swifts in shaft S1, which included the two mates that nested in shaft P3, after roosting in shaft Q2.

In 1970, no. -42 went back to shaft Q2 with a new mate (28-141879), whereas no. -05 went into shaft P3 where it was captured 25 June with two other birds. Nesting did not take place in that shaft, even though the swifts roosted there for the remainder of the season. No. -05 was never found again. His 14-year life history (Table 1) has remained the longest on record for this species.

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