

Nesting History of a Banded Hermaphroditic Chimney Swift

Ralph W. Dexter

Department of Biological Sciences
Kent State University
Kent, Ohio 44242

In concluding 40 years of banding Chimney Swifts (*Chaetura pelagica* L.) on the campus of Kent State University at Kent, Ohio, I sacrificed 4 individuals to determine, or confirm, the sex of those birds, and for all of their former mates, and their mates in turn, through past years. One individual (band no. 870-90780) was found to be a hermaphrodite (gynandromorph) with a testis on the right side and an ovary on the left side. It was a functional male throughout its nesting life. Following is a summary of its life history. For methods and for location of air shafts on the roof tops, see diagrams in Dexter (1969, p.194; 1981a p.137).

Chimney Swift no. 870-90780 was banded 2 June 1979 from air shaft A1 on the roof of Kent Hall where it was captured with no. 71-32564 as a return (which had nested there 1974-78), and another return, no. 71-32690, which was a "wanderer" (See Dexter, 1982, for its life history). Nos. -64 and -90 nested in A1 later that season. Late in the nesting season, nos. -80 and -90 were found roosting with the A5 mates and their nestlings during the evenings of 21 and 22 July. On 8 September no. -80 was taken as a repeat from that shaft with the mates which nested there, the mates of shaft C3, the mates of shaft A1, and 6 others (3 repeats and 3 new birds). No. -80 did not nest that year.

Usually Chimney Swifts do not nest during their first summer, although it is possible, and there are some such records (See Fischer, 1958 and Dexter, 1981b).

In 1980, no. -80 was captured as a return from shaft A5 on 20 April (with 870-14120, which had nested there in 1979); captured as a repeat from shaft Q2 on 23 April (with 870-14169 as a return); as a repeat from shaft M7 on 1 May (with 870-90954 as a repeat from shaft L2); and as a repeat again from shaft Q2 on 4 May (with female 870-90715 as a return which had nested there in 1979). Nos. -80 and -15 remained to nest in Q2, and were soon joined by a temporary visitor (no. 24-167825, a new bird which soon left) and a seasonal visitor (no. 870-90716, a return banded there in 1978) forming a three-some (See Dexter, 1952a; 1981b) when the nest was about one-half made. On 24 August, no. -80 was recaptured from Q2 with his mate, the mates of shaft S1 (870-90714 and 870-14396), and a return which had not been taken since it was banded from shaft Q2 in 1978.

In 1981, no. -80 was taken as a return from shaft Q2 on 28 June with a new mate (female no. 870-90714) which was one of those roosting with no. -80 in shaft Q2 the previous August. They nested successfully producing 4 nestlings. In 1982, no. -80 was trapped as a return from shaft A1 with a new mate (female no. 71-32564) which had nested in that shaft 1974-81. No. -80 had roosted with no. -64 in shaft A1 when banded in 1979 as noted above. When no. -80 entered shaft A1 to nest in 1982, the male swift (no. 870-14383) which nested there the previous year with no. -64, went to nest in shaft Q2 with no. -14 which had been the mate of no. -80 the previous year. Nos. -80 and -83 exchanged mates and nesting sites in 1982. No. -64, the new mate of no. -80, produced 3 clutches of eggs before succeeding in hatching 2 nestlings.

In 1983 no. -80 nested in shaft A5 with a new mate (no. 24-167862) which was nesting for the first time. After 3 eggs were laid, the nest was destroyed in a heavy rain storm on 16 June. Five days later a new nest was started and another clutch of 3 eggs laid (first year nesting females usually lay 3 eggs rather than the average of 4. See Dexter, 1981b). On 5 August another heavy rain again washed the nest from the wall, but by that time the 3 young birds were already clinging to the wall and escaped unharmed (See Dexter 1952b, and 1960 for discussion of that problem). On 16 August, no. -80 was sacrificed to confirm sex which had already been determined by mating combinations, and it was then learned that this functional male was a hermaphrodite.

Literature cited

- Dexter, R.W. 1952a. Extra-parental cooperation in the nesting of Chimney Swifts. *Wilson Bull.* 64:133-139.
1952b. Hazardous nesting of the Chimney Swift. *Auk* 69:289-293.
1960. Storm damage and renesting by the Chimney Swift. *Auk* 77:352-354.
1969. Banding and nesting studies of the Chimney Swift, 1944-1968. *Ohio Jour. Sci.* 69:193-213.
1981a. Chimney Swifts reuse ten-year-old nest. *North Amer. Bird Bander* 6:136-137.
1981b. Nesting success of Chimney Swifts related to age and number of adults at the nest, and the subsequent fate of the visitors. *Jour. Field Ornith.* 52:228-232.
1982. Wandering Chimney Swifts. *North Amer. Bird Bander* 7:156-157.
Fischer, R.B. 1958. The breeding biology of the Chimney Swift, *Chaetura pelagica*. N.Y. State Mus. and Sci. Service Bull. 368. 141pp.

(Inland)