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# Postscript on the Life History of Certain Banded Chimney Swifts

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During 40 years of research on the life history and social biology of Chimney Swifts (*Chaetura pelagica*) on the campus of Kent State University, the life history of 41 birds has been published to illustrate various aspects of their unique natural history. The account of 30 of these is complete (from one to 14 consecutive years), but 11 others were published in part only. Four of these have been selected to complete their life histories and to illustrate further the natural history and social biology of this species.

The annual nesting history of one pair (male 48-166266 and female 48-164557) has been described in detail for 1953 (Dexter, 1953). Following is a brief account of their entire life in the colony.

No.-57 was banded 3 Aug. 1950 with a group of 11 juveniles roosting in air shaft C1 (See Vol. 6:137, 1981, for diagrams giving location of air shafts) with the female which nested there that summer; and no.-57 returned the following year, but did not nest as typical for first year swifts. In 1952, she returned and nested in shaft L3 with a male which had nested in shaft H5 the previous year. From four eggs laid, two nestlings were produced which survived even after the nest fell following a soaking rain. When no.-57 returned in 1953, she did not continue with her former mate, but went into shaft E1 where she mated with a male (48-166266) which had been a visitor there the previous year, and was nesting for the first time. This pair likewise had a seasonal visitor ("helper at the nest") with them (See Dexter, 1952a for discussion of that matter). Five eggs were laid and three juveniles were produced. The following year the same 3-some nested in the same air shaft. Seven eggs were laid, an exceptional and a record number (aver. = four), and the visitor occasionally took turns incubating the eggs, all but one of which hatched. In 1955 the same three birds continued nesting together with the addition of another visitor making a 4-some. The nesting success of this group is not known.

While no.-57 did not return again, her mate no.-66 continued nesting for the next six years. In 1956, no.-66 returned to his former nesting site, air shaft E1, at first with his former visitor of the past two years, but then shifted to air shaft J1 where he nested with the female which had nested there for the past three years, but whose mate did

not return again. In 1957, no.-66 nested in air shaft H1 with a female which had been a visitor in shaft C3 the previous year, and they also acquired a visitor ("helper at the nest") for the season. When I returned after an absence of seven weeks, the nest was gone, but the two mates were still roosting at night on the nest site. In 1958, no.-66 was mated in air shaft D1 with the female that had nested there for the past four years, but her former mate did not return after eight years of nesting in D1. The new pair had several temporary visitors at one time or another, but none remained to form a 3-some.

In 1959, no.-66 returned to shaft D1, but in the absence of his former mate, soon moved into shaft G4 and mated with the female which had nested there for the past six years, but whose mate of the past three years did not return. His new mate laid four eggs which eventually produced four juveniles. The next year no.-66 returned to shaft D1, where he had nested in 1958, and joined a female which had nested in D1 in 1959. The new combination then nested together in D1, and both returned to nest there again in 1961, producing three juveniles.

The life history of 42-188516 has been published in detail for the period 1947-51 (Dexter, 1952b). For four years this male and his mates constructed the nest so near the top of the air shaft that heavy rain storms washed it from the wall each year. Following is an account of this bird over the four succeeding years. No.-16 returned to his former nesting shaft E6 on 5 May 1952. His previous mate had died at the end of the nesting season of 1951 after six years of successful nesting in shaft E6. Consequently, no.-16 brought in a new mate, no. 48-164546, which had nested the previous year in shaft Q2, but whose mate did not return. The new mate laid four eggs, all but one of which hatched, in a nest only 7.8 feet (2.4 m.) from the top of the shaft (aver. = 22 ft., or 6.7 m.). But again, a heavy rain storm destroyed the nest, and this time none of the nestlings survived the fall. While the male was retrapped from several roosting flocks in two different shafts over succeeding weeks, his mate did not remain with him (a common occurrence). However, they were reunited in shaft E6 the following May and produced five eggs in a nest only 8.0 ft. (2.4 m.) from the top, but for the sixth time it fell from the wall. The mates continued to roost on the site of the lost nest for some time, but the following year

the female joined the male in shaft D1 when his mate did not return, and the female from shaft A3 joined no-16 in E6 when her mate did not return. Again, the nest was placed only 8.0 ft. (2.4 m.) from the top and subsequently fell, but a new nest 31.8 ft. (9.7 m.) down the shaft was immediately constructed and three nestlings were produced. This was the first time no-16 built a nest not in a perilous position, subject to destruction by soaking rains. In 1955 the same pair was reunited in shaft E6, constructed a nest 32.8 ft. (10.0 m.) down in the shaft, and completed nesting without incident.

Two swifts (24-167740 and -41) banded from shaft N9 on 3 June 1959 were incompatible (immature?) and failed to complete nesting (Dexter, 1961). The female (no.-40) did not return, but the male (no.-41) came back to shaft N9 and was recaptured there alone on 17 May 1960. Soon he was joined by female 24-167709, but they were slow in starting a nest. Not until 5 June, when some swifts already had eggs on the nest, did this pair begin nest building which proceeded slowly. Five days later it was only two-thirds completed. After my absence of 12 weeks, the mates were recaptured with three juveniles, probably their own offspring. The mates returned to shaft N9 the next year on 6 May, and the old nest disappeared at once, as would be expected. Again they started nest building on 5 June, somewhat late, and when completed six days later they had a visitor that evening, and again in the evening of 24 June, but it did not remain to form a 3-some. Four nestlings were produced, and on 14 July, a temporary visitor once again spent the night with them.

When no.-41 was taken as a return 31 May 1962 from shaft N9 he was alone, but in four days he was joined by a female (25-137503) with a crippled foot (hand injury?). They had a visitor the evening of 7 June which was captured as a non-nesting return. Apparently only a nest foundation was made with the new mate, and on 22 September, no.-41 was roosting with two other swifts, a return (25-137507) and a non-nesting repeat which became a wanderer (for account of "wandering" swifts, see Dexter, 1982). In 1963, no.-41 was retrapped again from shaft N9 on 1 June with a new mate (25-137567) and a newly completed nest, but egg laying did not begin for 10 days. Three nestlings were produced. One visitor (25-137573) was present on 14 July, and the next night there were four visitors, including -07, which had been a visitor the year before, and -73 from the previous night (two of the visitors, including no.-73, had recently lost a nest from heavy rain). No.-41 did not return again, but in 1964, former visitor no.-07 replaced him as the mate to no.-67 in shaft N9. Thus, in five years, Chimney Swift no.-41 was incompatible during his first year of nesting (immature?), did not complete nesting one year, but was successful for three years.

## Literature Cited

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(Inland)

