

Table 4. Causes of Eastern Bluebird nest failure at three DuPage County, Illinois study sites.
Number and percentage of eggs or nestlings lost.

CAUSE OF FAILURE	1989A	1989M	1989F	1989T	1990A	1990M	1990F	1990T	1991A	1991M	1991F	1991T
House Sparrow	0	0	0	0	0	0	0	0	0	0	0	0
House Wren (percentage)	11 (7.6)	2 (4.4)	0	13 (6.7)	10 (3.6)	0	0	10 (3)	9 (3.6)	0	5 (33.3)	14 (4.7)
Tree Swallow (percentage)	0	0	0	0	0	7 (11.5)	0	7 (2.1)	0	0	0	0
Other Eastern Bluebird (percentage)	0	0	0	0	5 (1.8)	0	0	5 (1.5)	4 (1.6)	0	0	4 (1.3)
Raccoon (percentage)	0	0	0	0	21 (7.6)	15 (25)	0	36 (10.7)	4 (1.6)	4 (12.9)	4 (26.7)	12 (4)
Human (percentage)	6 (4.2)	0	0	6 (3.1)	5 (1.8)	0	0	5 (1.5)	13 (5.2)	9 (29)	0	22 (7.4)
Weather (percentage)	5 (3.5)	0	0	5 (2.6)	0	0	0	0	0	0	0	0
Unknown (percentage)	24 (16.7)	9 (20)	1 (20)	34 (17.5)	45 (16.2)	11 (18)	0	56 (16.6)	50 (19.9)	3 (9.7)	1 (6.7)	54 (18.2)
Outcome unknown	1	0	0	1	1	0	0	1	0	0	0	0

*A = Morton Arboretum, M = McKee Marsh, F = Fermilab, T = Total

normal eggs, faulty incubation, unexplained abandonment of eggs or young, unexplained disappearance of one or both adults, and fluctuations in food supplies and weather conditions. Most of these factors are extremely difficult to verify, hence the large percentage of unknown causes of failure each year.

Banding

Forty-five adult Eastern Bluebirds (36 females and 9 males) and 579 nestlings were banded during

the course of the study (Table 5). Forty-seven of these (3 adult females and 44 nestlings) were banded at the Morton Arboretum site in 1988, before the formal initiation of this study (with USFWS bands only)

Thirty-eight individuals or 8.6% of the 444 bluebirds banded from 1988 - 1990 returned to the study sites for one or more years. Thirty (19.4%) of the bluebirds (23 nestlings and 7 adults) banded in 1989, returned in 1990 and/or 1991 (Table 6). Seven of the nestlings that returned as adults to

nest on the study sites in 1991, had been banded in 1989 and were not in evidence at any of the sites during 1990.

The overall number of breeding adults increased quite dramatically from the first to the second year of the study (64 adults in 1989, 98 adults in 1990). This increase in breeding adults did not come solely from the previous year's fledglings at each site however. At the Morton Arboretum site, for example, even though all nestlings and nearly 70% (15 of 22) of the

Table 5. Number of Eastern Bluebirds banded at three DuPage County, Illinois study sites.

MORTON ARBORETUM					MCKEE MARSH	FERMILAB	YEARLY TOTALS			TOTAL BANDED
Year	Males	Females	Nestlings	Total	Nestlings	Nestlings	Males	Females	Nestlings	
1988	0	3	44	47	0	0	0	3	44	47
1989	5	15	97	117	34	4	5	15	135	155
1990	4	17	193	214	28	0	4	17	221	242
1991	0	1	163	164	11	5	0	1	179	180
Totals	9	36	497	542	73	9	9	36	579	624

Note: Banding was not initiated at McKee Marsh or Fermilab until 1989, and no serious attempt was made to band adults at those sites.