

**Bilateral gynandris in a Cardinal and a Rufous-sided Towhee.**—During my 38 years of birdbanding I have trapped and banded two individuals in mixed male and female plumage. A Rufous-sided Towhee (*Pipilo erythrophthalmus*) I took 13 April 1941 showed a distinct line of demarcation ventrally. The right side of head and breast was entirely black, the left side was brown interspersed with a few black feathers. The back was mottled black and brown. The central pair of rectrices was brown, the others were brownish with dark inner vanes. In the greater wing coverts dark feathers predominated, in the lesser wing coverts brown feathers predominated. The flattened wing measured 86 mm, morning weight was 40.4 g.

A Cardinal (*Richmondia cardinalis*) I banded 10 January 1969 had the right side brilliant red and the left side grayish olive. The central line of demarcation was sharp, extending from the upper breast through the under tail coverts. The crown and crest were female, but the area around the upper mandible was black as in the male. The throat was light with no black around the lower mandible.

Roxie C. Laybourne (*Auk*, 84: 267, 1967) describes bilateral gynandris in an Evening Grosbeak (*Hesperiphona vespertina*) and cites the published records of gynandris reported in other species since 1874. Of the 10 species of birds and fowl she lists, only the Flicker, Orchard Oriole, Pine Siskin, and Evening Grosbeak are North American.—AMELIA R. LASKEY, 1521 Graybar Lane, Nashville, Tennessee 37215.

**Age-specific mortality of American Goldfinch nestlings.**—This note, based on 83 American Goldfinch (*Spinus tristis*) nests studied at Toledo, Ohio in 1963, 1964, and 1965, analyzes the relative times when goldfinch eggs or nestlings are lost. The population was located within the city limits in an area where second growth vegetation, hedgerows, and weed fields were abundant. Nest sites, nest building, egg laying, and incubation are described elsewhere (Holcomb, *Bird-Banding*, 40: 26, 1969).

The fate was known up to the time of fledging for a total of 375 eggs in 83 nests in the 3 years. Predators removed 101 eggs representing 27 per cent of the eggs. The 51 nestlings taken by predators amounted to 22 per cent of the 228 nestlings that hatched. Other causes of loss were: 21 eggs were infertile, 4 were deserted, 11 destroyed by wind and rain, 2 by human interference; 1 nestling died in bad weather, 1 from human interference, 12 of starvation, and 3 of diseases.

Table 1 shows the time of removal of eggs and nestlings from nests. Only 15 eggs were taken while hens were laying. Eggs were removed by predators throughout incubation on a rather regular basis beginning on day 3. Perhaps this indicates that the nest is not so vulnerable in the first 2 days of incubation. Two explanations might be, 1) females spent less time on the nest in early incubation and 2) perhaps the male does not feed the female so often during the first 2 days. The consistent

TABLE 1  
TIMES OF DISAPPEARANCE OF EGGS AND NESTLINGS FROM NESTS<sup>1</sup>

	Day												
	0	1	2	3	4	5	6	7	8	9	10	11	12
Eggs vanishing during laying		4	7	1	3								
Eggs vanishing after clutch was completed				11	10	7	9	5	5	5	6	6	2
Nestlings disappearing after hatching	4	2	2	11	5	3	7	11	2	1			

<sup>1</sup> Shows only numbers of eggs and nestlings for which the day of disappearance is definite.

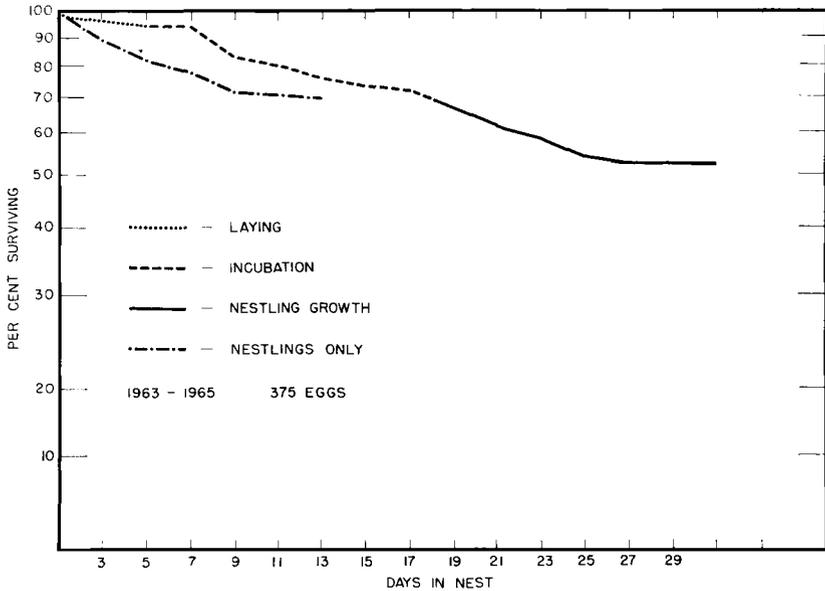


Figure 1. Survival of goldfinch eggs and nestlings.

removal of eggs after day 3 shows that nests may have degrees of vulnerability to predation and that the longer a nest remains, the more likely it is to be found.

Six nestlings disappeared between hatching and day 2. Young nestlings are small, rather inactive, and make weak sounds. Between days 3 and 9, however, 40 nestlings vanished. This is probably related to the nestlings becoming larger, more active, and noisier when calling for food. The adults are more active about the nest because of the greater food demands of the nestlings. Although these goldfinches fledged at an average of 12.3 days of age, no predation occurred after day 9.

Figure 1 is a survival curve for the goldfinch on a semi-logarithmic scale in which a uniform rate of mortality results in a straight line. Except for a slight hump between days 5 and 9 and a leveling off after day 25, the curve is essentially straight. The early fluctuation has been explained above. The straight line after day 25 occurs when nestlings are over 9 days of age and perhaps become aware of potential predators and remain quiet. The curve for nestlings shows the straight line relationship from day 0 to 9 and then the distinct tapering off.

H. Young (Auk, 80: 145, 1963) reports that nestling mortality exceeded egg mortality in both Red-winged Blackbirds (*Agelaius phoeniceus*) and Yellow-headed Blackbirds (*Xanthocephalus xanthocephalus*). The survival curve for the egg-nestling period was negatively skewed and the rate of egg loss was uniform in both species; the nestling mortality curve was negatively skewed for redwings, but that for the yellow-heads was of the straight line type. He further suggests that positively skewed life curves appear to be typical for small passerines, which my goldfinch data seem to bear out.

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