

bluebirds were found dead in nest boxes beneath sparrow nests.

On one occasion I saw a male House Sparrow leave a nest box containing six young bluebirds. While I approached, the male bluebird flew nervously about. On removing the box top I discovered the female and one of the young dead. Two other young had several feathers missing from around their eyes and were bleeding from the bare skin. I took the remaining five young and put them in three other nest boxes with young Mountain Bluebirds

about the same size. I am happy to report that they were all successfully fledged. Fortunately, House Sparrows seldom attack young bluebirds and swallows in the nest, as they are busy raising their own families at that time of year.

Tree Swallows had a successful nesting season. More than 180 of the 200 houses set out in the spring of 1973 were occupied by Tree Swallows.

The following table gives the number of Mountain Bluebirds and Tree Swallows retrapped in 1973.

MOUNTAIN BLUEBIRD

Year Banded	No. Retrapped in 1973
1969	1
1970	3
1971	7
1972	22
Total	33

TREE SWALLOW

Year Banded	No. Retrapped in 1973
1969	3
1970	6
1971	16
1972	38
Total	63

CALGARY BLUEBIRD TRAIL

by HAROLD W. PINEL*
and CAROL J. ROBINSON**

In March and April of 1973, the Calgary Bluebird Trail was established by the authors. We constructed 191 nesting boxes with the help of members of the Calgary Field Naturalists' Society. The Trail begins approximately 1 mile north of Turner

Valley, Alberta, and continues in northerly direction skirting the western city limits of Calgary, then passes through Cochrane and Cremona to Elkton where it turns eastward and terminates about 11 miles east of Didsbury (Fig. 1). Total length is about 115 miles. The boxes were erected on fenceposts at approximately one mile intervals.

The houses were set up between March 29 and April 5, 1973. Every house was checked four times throughout the spring and summer and the contents of each were recorded. Houses numbered 1 through 60 were inspected on May 23, June 11, June 18, and August 1, while houses 61 through 191 were checked on May 24, June 11, July 4 and August 3.

RESULTS — Of the 191 hou

*1017 - 19th Ave., N.W.
Calgary, Alberta.

**Group Box 3,
9th Ave. and 22nd St., S.E.
Calgary, Alberta.

Table 1. Summary of Nesting Success by Species, Calgary Bluebird Trail, 1973. (Numbers in parenthesis are losses from the previous stage.)

Species	Nests started	Nests completed	Eggs laid	Eggs hatched	Young fledged	Young left nest
Mountain Bluebird	30	30 (0)	152	113 (39)	113 (0)	113 (0)
Tree Swallow	91	88 (3)	516	374 (142)	294 (80)	293 (1)
House Sparrow*	25	25 (0)	111	40 (71)	2 (38)	0 (2)
House Wren	10	10 (0)	32+	26+ (6)	22+ (4)	22+ (0)
Black-capped Chickadee	1	1 (0)	7	0 (7)	0 (0)	0 (0)
TOTAL	157	154 (3)	818+	553+(265)	431+(122)	428+(3)

*Destroyed by investigators.

erected, 34 were vandalized before nesting began, 16 after nesting started and 23 were empty on all visits. In the 118 houses used, 154 of 157 clutches were completed. Eighty-five percent of the houses available, i.e., excluding 34 vandalized before the nesting period, were occupied. The majority of the 50 vandalized houses were the result of road construction in the area between Cochrane and Bottrel. The other area of heavy vandalism was along the southwestern city limits of Calgary. It is interesting to note the difference between the number of houses used (118) and the number of completed nests (154). This difference is due to (a) the 16 houses vandalized after nesting had begun, and (b) 20 houses in which second broods occurred or in which more than one species nested.

Table 1 presents the nesting success and analysis of losses at different stages. In its first year the trail had 30 Mountain Bluebird nests which is excellent, especially in view of the number of houses. The average clutch size for the Mountain Bluebirds was 5.07, while it was 5.75 for Tree Swallows. The largest clutch was 8 eggs (in four boxes) for swallows and seven eggs (in four boxes) for bluebirds. In five nest-boxes, there was evidence of two or more broods by the same species. Two were occupied by Mountain Bluebirds, one by Tree Swallows and two by House Sparrows. In one house a dif-

ferent clutch of sparrow eggs was found on each of four visits. Two species nested in the same house in 15 instances, as follows: sparrow then swallow, 5; sparrow then wren, 1; sparrow then bluebird, 1; chickadee then wren, 1; bluebird then wren, 2; bluebird then swallow, 2; swallow then bluebird, 2; swallow then wren, 1. In 7 of these instances House Sparrow nests had been destroyed on previous visits.

All House Sparrow nests, eggs, and young were destroyed. The pair of Chickadees was unsuccessful due to an invading pair of House Wrens. A nest-box containing six House Wren eggs was vandalized and four young were found dead in another box, apparently as a result of desertion by the adult birds. The only losses by Mountain Bluebirds occurred prior to hatching of the eggs. A few eggs were infertile, while other losses were due to a strong wind storm which damaged some boxes and to competition with Tree Swallows for the houses. Tree Swallows suffered the greatest losses. 142 eggs failed to hatch due to desertion by the adults because of highway construction and, in the Bottrel-Didsbury area, because of flies. Eighty young failed to fledge, all as a result of flies. Both adult flies (presumably blow flies) and maggots were noticed in and on the young.

Throughout the length of the trail,

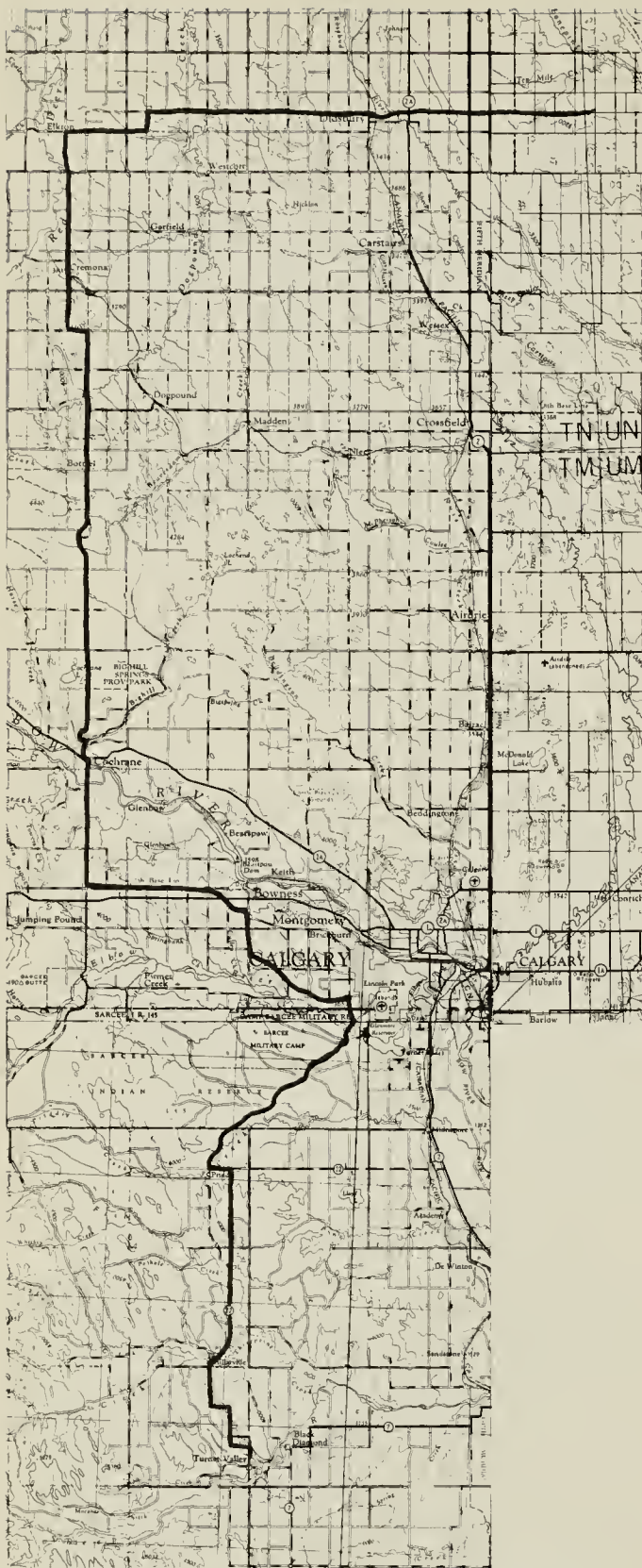


Figure 1. Route of Calgary Bluebird Trail

certain areas were more productive than others for bluebird numbers. Turner Valley to Calgary and Bottrel to Elkton were the areas of highest bluebird density. The areas from near Calgary to Bottrel and from Elkton to east of Didsbury had only one pair of bluebirds between them and this pair did not nest successfully. It is interesting that these unproductive areas

are cultivated lands with very few trees, whereas the productive areas were characterized by scattered aspen groves.

INTERESTING PRINCE ALBERT BIRD RECORDS

Compiled from the notebooks of the late E. Derek Beacham
by MARY I. HOUSTON*

†**Harlequin Duck**: A male remained at the mouth of the Sturgeon (Shell River, 4 miles west of Prince Albert) where it was observed by Frank and Elsie Morton from May 23-25, 1966.

Turkey Vulture: One sighted at Round Lake, northwest of Prince Albert, June 22, 1968 (EDB).

Osprey: One observed by Frank Morton, October 24, 1969.

†**Peregrine Falcon**: One observed close range, flying 10 feet above the river bank near the Prince Albert airport on the morning of September 2, 1969 (EDB).

American Golden Plover: Seen in greater numbers than previously recorded for Prince Albert: seen daily from May 26 to June 1, 1969, with over 300 on the latter date; also found on September 20, 1969 (EDB).

Black-bellied Plover: Two records of eight and nine birds on May 27 and 28, 1969 (EDB).

Ruddy Turnstone: One seen May 28, 1969 (EDB).

†**Whimbrel**: Five individuals were observed at length at the edge of slough, 8 miles north of Prince Albert. They landed at 9:40 a.m. on May 28, 1969, were seen again that afternoon and the following evening and finally at 4:30 p.m. on May 29 (EDB).

*863 University Drive,
Saskatoon, Saskatchewan.