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CALGARY BLUEBIRD TRAIL — 1974

by HAROLD W. PINEL*
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Because of the success of the Calgary Bluebird Trail in its initial year, 1973, we decided to double the number of nesting boxes in 1974 from 191 to 382. First, all the boxes vandalized or missing from the 1973 trail were repaired or replaced. Then in early March of 1974, nest boxes used the previous year were cleaned out and

sprayed with a creolin solution (1 part creolin to 10 parts H₂O) to destroy lice and other insects. In late March of 1974, the 191 new houses were erected in different areas as continuation of the already existing trail (Fig. 1) bringing the trail to about 220 miles.

Every nesting box was checked and the contents recorded four times between the 3rd week in May and the 1st week in August.

Of the 382 boxes, 42 were vandalized before nesting began, 42 nesting started and 35 were used

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pied on all visits, leaving 301 boxes
 ed by birds. Excluding 42 van-
 lized before the nesting period,
 .5% of the available nesting boxes
 re occupied. There were 353 nests
 the 301 nesting boxes, some houses
 ing used twice.

Table 1 presents the nesting success
 d analysis of losses for 1974. The
 erage clutch size for Mountain
 uebirds was greater in 1974 than in
 73, 5.59 vs 5.07.¹ Tree Swallow
 ches were about the same size, 5.78
 1974 and 5.75 in 1973.¹ The largest
 ch was 8 eggs — in six boxes for
 allows and in one box for bluebirds.

18 nest boxes, there were two or
 ore broods by the same species. Nine
 re occupied by House Sparrows, six
 Mountain Bluebirds, and three by
 ee Swallows. Two species nested in
 e same box in 25 instances, as
 lows: sparrow then swallow, 11;
 arrow then wren, 1; swallow then
 arrow, 4; swallow then wren, 3;
 allow then bluebird, 1; bluebird
 en swallow, 4; bluebird then
 arrow, 1. In 12 of these occurrences
 ouse Sparrow nests had been
 stroyed on previous visits.

Numerically, the total losses for all
 ecies incurred from the egg-laying
 ge to the time that the young left the
 st were greater in 1974 than in 1973,
 t percentage-wise they were much
 s, 47.7% in 1973 as compared to
 8% in 1974. Remember that these
 ures are the total losses; they would
 much less if all House Sparrow
 sts, eggs and young had not been
 stroyed. The large increase in suc-
 s during 1974 was the result of
 ch smaller losses by Tree Swallows.
 e flies which infested the swallows
 ring 1973 were a minor problem in
 74, possibly as a result of our disin-
 tion program or, perhaps, the flies
 ply had a poor year. The Mountain
 uebird losses, on the other hand,
 owed an increase. This was the result
 poor weather conditions in the
 ing which caused some birds to

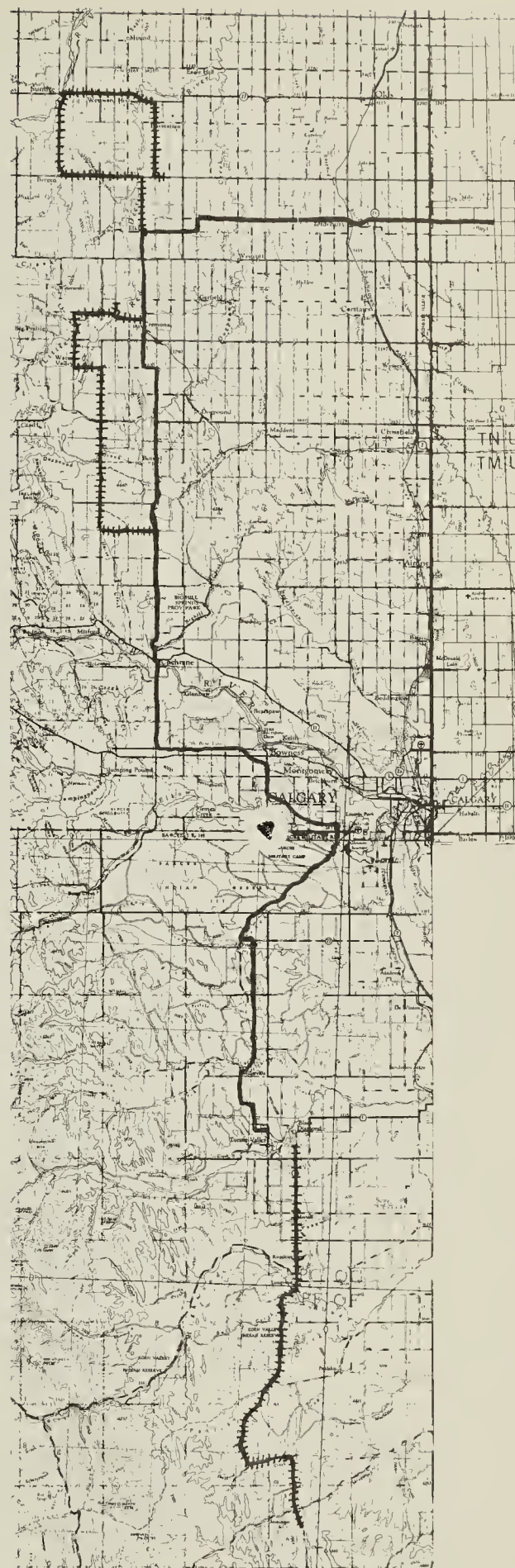


Fig. 1 Route of Calgary Bluebird Trail (— 1973 Trail; ++ 1974 Extensions of Trail).

desert their nests and others to appar-
 ently delay nesting. The delay was
 significant because Tree Swallows then
 arrived on the scene and, in many

Table 1. Summary of Nesting Success by Species, Calgary Bluebird Trail, 1974. (Numbers in parenthesis are losses from the previous stage.)

<u>Species</u>	<u>Nests</u>	<u>Eggs Laid</u>	<u>Eggs Hatched</u>	<u>Young Fledged</u>	<u>Young Lost</u>
Mt. Bluebird	54	302	216(86)	214(2)	214(0)
Tree Swallow	242	1399	1194(205)	1131(63)	1131(0)
*House Sparrow	49	201	78(123)	3(75)	3(0)
House Wren	8	32	29(3)	29(0)	29(0)
Totals	353	1934	1517(417)	1377(140)	1377(0)

*Destroyed by authors.

cases, out-competed bluebirds for the boxes.

An interesting event occurred in nest box No. 145, located approximately 2 miles east of Elkton. On May 22, the box was empty except for a few pieces of grass. On June 13, a Tree Swallow flushed out of the box which contained a Mountain Bluebird nest with 2 bluebird eggs and 1 swallow egg. On July 4, the box contained 1 bluebird egg and 2 young bluebirds, and a pair of Tree Swallows was observed carrying food to the young. On August 7, the nest contained the single bluebird egg and many droppings, leading us to conclude that a pair of Tree Swallows had successfully raised two young Mountain Bluebirds.

In summary, by doubling the number of nest boxes in 1974, we had hoped to double the number of young leaving the nest. In fact, the results showed an increase of 3.2 times the number of young leaving the nest. This may be attributed to: (a) the increase in occupancy rate from 85% to 88.5% (b) the slight increase in average clutch size of the bluebirds and swallows, (c) the decrease in vandalism from 26.2% to 12%, and (d) the decrease in losses, mainly the result of a much-reduced fly problem.

PINEL, H. W. and C. J. ROBINSON, 1974. *Calgary Bluebird Trail*. Blue Jay, 32: 108-111.



PRAIRIE NEST RECORD SCHEME

1975 cards for everyone interested in recording nest data in Alberta, Saskatchewan, Manitoba and the Northwest Territories are now available with instructions and a summary for 1974 from:

The Prairie Nest Record Scheme,
c/o Manitoba Museum of Man and Nature,
190 Rupert Avenue,
Winnipeg, Manitoba. R3B 0N2.