

SHORT-EARED OWLS NEAR EDMONTON, 1970-1973

by KEN TRANN*

The December, 1973, issue of the *Blue Jay* contained a report entitled "1972 Alberta Raptor Banding Report" in which Chris Rees wrote, that "Two large concentrations of Short-eared Owls could be noted, one north and one south of the city of Edmonton. Several members of the group worked very hard in the area south of the city finding 18 to 20 nests." I was one of the members most active in the area, and I thought a more comprehensive account might be interesting to others.

This report really begins 2 years earlier. In April, 1970, north of Edmonton, near Namao, wherever we drove or walked in an area of approximately 25 sq. mi., an owl of this species could be observed flying over fields or perched on a fence-post. They frequented fields with grass or stubble or grassy edges of dirt fields or grassy ditches. The birds were studied as often as possible during the next month. We plotted territories on maps and watched courtship displays. We were able to locate at least 20 pairs. The first nest was found on May 20, 1970, in a grassy area bordering a grain field. Between May 20 and June 22 we found 16 nests in this area in all stages of development. For example, on May 26 a nest was found containing 3 eggs and 2 nestlings and on June 22, almost a month later, another nest was found containing 6 eggs.

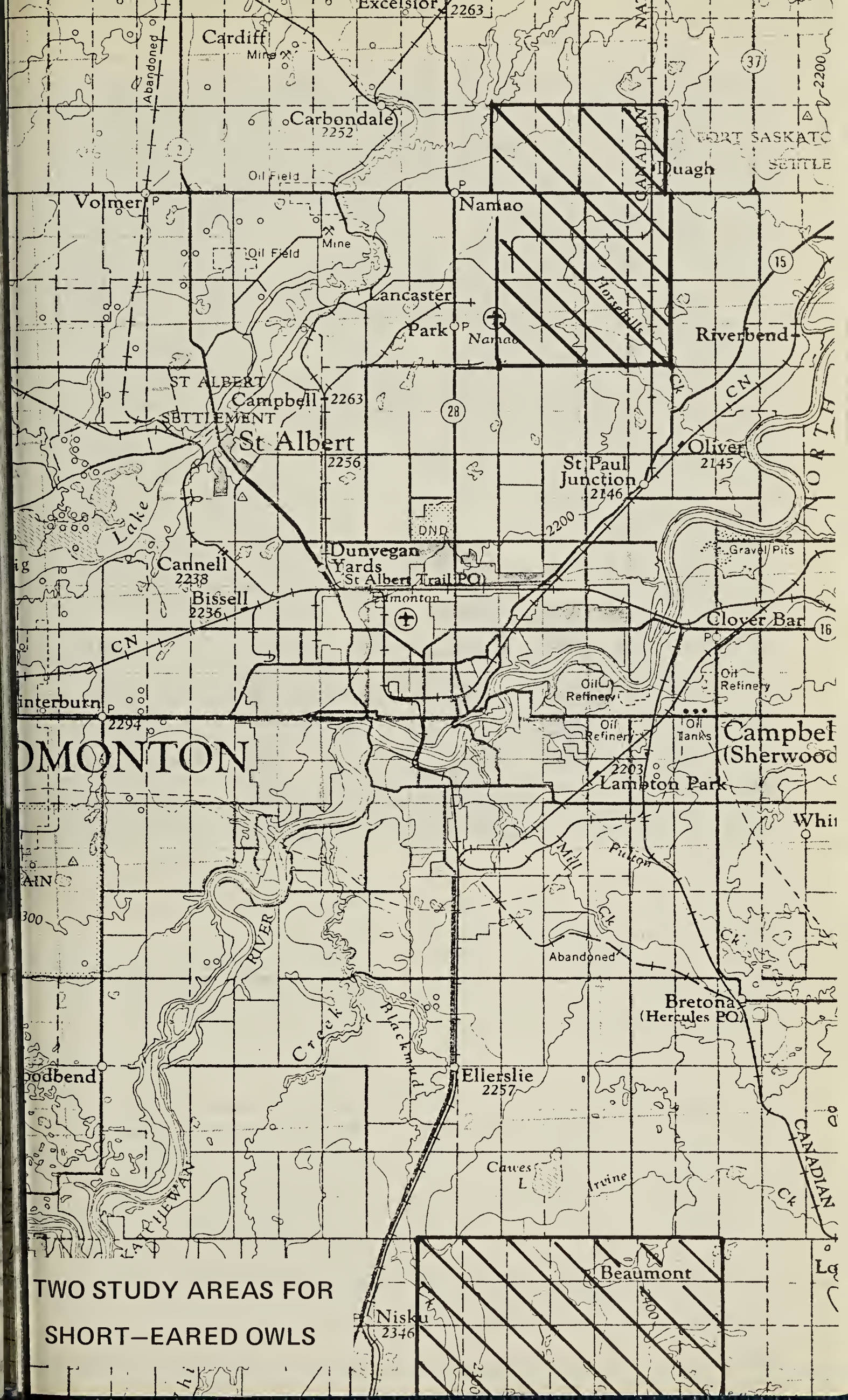
Many nests were found in stubble but they were usually destroyed by farming operations. On three occasions,



Chris Rees
Silhouette of Short-eared Owl on fence-post

to prevent destruction by the plow, we asked the farmer's permission to erect warning poles 10-15 feet on either side of the nest. When a farmer saw the marker he worked around the nest. Co-operation was excellent whenever we alerted the farmers but we often had trouble finding out who owned the land. Consequently, we were too late to save some nests. Many nests were destroyed by the plow, some by

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Cardiff

Carbondale 2252

Namoo

Lancaster

Park

Campbell 2263

St. Albert 2256

Cannell 2238

Bissell 2236

Dunvegan Yards

St. Albert Trail PO

Lamont Park

St. Paul Junction 2146

Oliver 2145

Clover Bar

Oil Refinery

Oil Refinery

Campbell (Sherwood)

Lamont Park

Whit

Bretona (Hercules PO)

Ellerslie 2257

Caves L

Truine

Beaumont

Nisku 2346

TWO STUDY AREAS FOR SHORT-EARED OWLS

TABLE 1
Individual Short-eared Owl Nest Data

Nest No.	1970		Nest No.	1972	
	Eggs & Young	Fledged Young		Eggs & Young	Fledged Young
1	5	2	1	8	8
2	9	9	2	4	4
3	1	1	3	10	6
4	1	0	4	4	4
5	7	7	5	10	8
6	5	0	6	9	9
7	1	0	7	5	5
8	7	7	8	6	6
9	3	0	9	9	9
10	6	0	10	5	5
11	5	0	11	8	8
12	5	0	12	9	9
13	5	5	13	4	4
14	3	3	14	2	1*
15	6	6	15	4	4
16	5	1	16	2	2
Total	74	40		99	92

% fledged each year 54%

93%

% fledged both years 76%

*See text – Redtail Predation.

predators and some were deserted, cause unknown.

Short-eared Owls were noticeably absent in 1971 both in the 1970 and 1972 study areas. The appearance and disappearance of these birds depends entirely on the availability of prey, which is almost exclusively mice. On

one occasion, however, I frightened an owl away from a freshly killed Savannah Sparrow, but A. C. Bent lists 75% of the prey as mice and 25% as birds and insects.¹

In 1972 a 25 sq. mi. area was studied near Beaumont, south of Edmonton. Birds were first seen (2) in early April

TABLE 2

Year	Total Nests	Complete	Incomplete*	Total Failures
1970	16	11	5-4 failed 1 (3 young)	8
1972	16	14	2-4 young (2 per nest)	0

*Nests found with young in advanced stages or nests that were destroyed before completion.



Female Short-eared Owl on nest

Chris Rees

By the end of April, birds could be seen wherever one travelled within this area. The habitat was similar to the Namao site: open country, grain fields, grassy ditches and mice in abundance. Between May 30 and July 4 we found 16 nests. Clutch size varied from 4 to 10 eggs. Some nests were found in advanced stages of development, so the original clutch size is unknown. Because young may leave the nest 2 to 3 weeks after hatching, when a nest was found containing few birds we called it an incomplete clutch. We searched the immediate

TABLE 3

Clutch Size (complete clutches only)

<i>Clutch</i>	1970	1972
4	0	4
5	6	2
6	2	1
7	2	0
8	0	2
9	1	3
10	0	2
Total	11	14



Young Short-eared Owl, 2-3 weeks old

Chris Rea

area but could find nothing. Because they are known to crawl some distance, it is conceivable that these nests contained more young at an earlier date.

Hatching was considerably more successful in 1972. Nests were not hindered by farming operations as was the case near Namao in 1970. On one field trip I observed a Short-eared Owl attacking a Red-tailed Hawk. Through binoculars I saw the hawk drop its cargo. I ran out to the field and found a young Short-eared Owl, slightly ruffled but unharmed! On further investigation, I found the nest with the female and one young, both dead. The carcasses were fresh with no clues as to how they were killed.

Territorial establishment was not observed. A pair could be found

nesting in a field with another pair only a short distance away. It was common to observe four to six birds hunting the same tract of land. Although we found 16 nests in 25 sq. mi., other pairs successfully concealed their nests. We observed the familiar warning signals from disturbed owls but closer scrutiny of the area revealed nothing. Their behaviour when an observer approached a nest is worth mentioning. The male usually appeared high above when an observer was still 1/4 mile from the nest. As one got closer to the nest and the hidden female, the male dropped lower and lower — circling and “barking”. When the nest was just a few feet away the male crash dived to the ground — and “crash” is not an exaggeration. He would dive towards the ground away from the nest, hit with force enough to



Ken Trann and Brian Nicolaie banding young Short-eared Owls

Chris Rees

seem to injure himself, roll over and then look back, with wings spread, appearing severely damaged. It is an amazing performance and I have witnessed it many times. It is the surest clue to use when searching for the nest.

I should also warn an observer to be careful around a nest containing young birds. On occasion adult birds will attack. While trying to band young at one nest, I was rapped on the head by an adult bird three times before I decided to retreat. This did not occur when I was with someone. In fact, I had never heard of it happening before with this species.

In 1973, Short-eared Owls were again scarce. Some birds were seen

near Beaumont in April but a return visit in May revealed no owls of this species. Long-eared Owls and Marsh Hawks, also dependent on an abundance of mice, were also scarce. It is too early to determine whether there is a 2-year cycle in these areas but 1974 should add further information.

I would like to thank R. E. Gehert for the encouragement he offered, Chris Rees for the photographs and Rick Svrcek and Brian Nicolai for contributions and assistance.

¹BENT, A. C. 1961. *Life histories of North American birds of prey. Part Two.* Dover Publications Inc., New York, New York, p. 172.

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No house should ever be *on* any hill or on anything. It should be *of* the hill, belonging to it, so hill and house could live together each the happier for the other.

Frank Lloyd Wright