

BALD EAGLE BANDING IN NORTHERN SASKATCHEWAN (1967)

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During the month of July, 1967, the authors banded a number of nestling Bald Eagles (*Haliaeetus leucocephalus*) and Ospreys (*Pandion haliaetus*) in northern Saskatchewan. This was the result of planning begun a year earlier when we saw eagles and nests on two canoeing trips: one to Otter Rapids in Saskatchewan and the other northeast of Kenora, Ontario. On one occasion we rounded a bend to see several Common Ravens and Turkey Vultures fly up. We soon saw why. An adult eagle which, for reasons we could not determine, was unable to fly, plunged into the water from the rock where it had been mobbed, and swam across a small bay and into the reeds on the other side. The eagle swam much like someone doing the butterfly stroke, hunching its wings and flopping forward. We followed it on shore and were rewarded with an excellent closeup view.

In early 1967 we wrote for information to many of the D.N.R. offices in the north. Also, through friends who had been in the north we learned of many nests, though most were ones used in past years which might not be used again in 1967. This was often the case and we usually had to check several sites before finding an occupied one. A better method of locating nests in use, we later discovered, was on the spot questioning of local residents and guides who knew the area well. Even then we had our bad days, as at Amisk Lake, when we visited eight locations and found only one nest with young.

Dr. Stuart Houston warned us before we started that at about half the active nests we found, we would be unable to band the young. Either the tree would be too difficult to climb at all, or it would be impossible to get around the nest. In preparation, we borrowed a pair of climbing spurs and



Photo by D. W. A. Whitfield
Bald Eagle at Bog Lake,
about nine weeks old.

practised using them on our outings to band Great Horned Owls and Red-tailed Hawks. But getting around the bulky eagle's nests (one we measured was 6½ feet by 5⅛ feet across the top and 4 feet high) had to be practised in the doing. The task, several times very difficult, was never impossible, and we left no eagles unbanded.

With a number of nests located, we set out, primarily concerned with banding and the collection of information, but also with hopes of photographing the young birds. On July 1 to 3, we visited La Ronge, Otter Rapids, Devil Lake, Dead Lake (2),*

* The figures in brackets indicate young banded. Commas separate young of different nests in the same area.

Little Deer Lake, Nemeiben Lake (1, 1) and Anglin Lake (Osprey 1). At La Ronge, Bill Richards told us about several nests at locations accessible only by aeroplane. One of these was in the top of a geodesic tower. Unfortunately, our budget contained no provision for aircraft rental and no free flights were available just at that time, so we got to none of Mr. Richard's nests.

At Devil Lake, about half a mile from a known nest, which proved to



Photo by J. M. Gerrard

Whitfield climbing to an Osprey nest at Jan Lake.

be empty, an adult eagle flew back and forth across a channel, calling in its squeaky voice. This behaviour we later found to be typical of an eagle near a nest. At the time we did not search thoroughly for a second, occupied nest, for we still thought, mistakenly, that all nests would be easily seen on account of their size. In actual fact, these huge piles of sticks are often difficult to see from the water and sometimes even from the air. After paddling to Dead Lake we were rewarded with the sight of an adult eagle sitting on a nest. This was 45 feet above the ground in a dead aspen poplar. The nest was in a crotch with the largest ascending branch only two or three inches in diameter and quite dead. After fastening a safety rope to the trunk beneath the crotch and about his waist, one of us climbed up.

It is a thrilling experience to band young Bald Eagles, especially when one is able, as we often were, to sit on the nest beside them while applying the bands. They have brown down in contrast to the white down of the young Golden Eagles (*Aquila chrysaetos*) which we had banded earlier in the year. There was a marked contrast in behaviour too. The Golden Eagles had been very docile, but these young Bald Eagles stood up when they heard us approaching the nest and attempted to use their claws and beaks to defend themselves. They would greet us with rapid and repeated exhalations of breath, a panting vaguely like that of a dog. While we were at the nest, the adult eagles circled overhead, sometimes coming as close as 30 feet, though never actually stooping at us. The parent eagles behaved in this manner at every nest, except one at which they put in no appearance.

After banding single eaglets in two nests on nearby Nemeiben Lake, we headed for Anglin Lake. The nest was of Osprey this time, and was at the very top of a dead tree with a precarious lean. Because of this, we tied a rope around the trunk about halfway up and anchored it to another tree about 100 feet away. One



Photo by D. W. A. Whitfield

Gerrard banding a seven-weeks-old Bald Eagle at Nemeiben Lake.

adult was at the nest when we arrived, and while the banding was in progress, the second adult arrived with a fish in its talons. It circled the nest, carrying the fish, until we left.

The second weekend, July 8 to 9, our route took us to Candle Lake (1), to Squaw Rapids (2) and to Cumberland House. At Squaw Rapids the nest was in a region of dead, fire-hardened trees. It was more than a mile from the closest lake, and the eagles were living on ducks, unlike most of the other eagles whose nests contained only fish. In this nest were a Mallard's skeleton, a Blue-winged Teal's wing, and many duck feathers.

We travelled up the Hanson Lake Road on July 15 to 16, stopping at Deschambault Lake, Hanson Lake (2, 2), Pelican Lake (1, 2, 2) and Jan Lake (Osprey—2). At Deschambault Lake a fishing camp operator told of a pair of eagles seen several times feeding on carrion on the road, but we found no nest in the area. At Hanson Lake our luck picked up—two nests. There was a fairly strong wind and the eagles crouched down out of sight so that until we realized what they were doing, we thought the nests were

empty. At Pelican Lake things improved still further, for we found three nests within four miles of the abandoned town of Sandy Narrows. This was the densest distribution that we came across, though it must be remembered that our coverage of all the areas visited was cursory. The limited time available meant that we could only visit those places where we were told that there might be nests, and we found that even those familiar with a lake often did not know of all the nest sites on it. We arrived at one of the nests on Pelican Lake in the rain. The eaglets were wet, and the parents who were absent when we arrived, did not show themselves for 10 minutes, when the rain had almost stopped.

Near Jan Lake we found our second Osprey nest. Here on July 15, were two young only a few days old. While we were at the nest, three adult Osprey circled overhead. A quick check for another nest in the area was in vain.

On July 20, with an offer from Dr. H. Dirschl of the Canadian Wildlife Service of a helicopter ride to several nests, we returned to Cumberland

House. We visited Bog Lake (1), Cow Lake (1) and Little Egg Lake. These three nesting areas followed a very interesting pattern. In each area there were two nests within half a mile. In two of these sets, one nest was occupied and one was not. In the third pair, neither was occupied, although an eagle was seen nearby. Broley (1952) mentions that eagles often have two or three nests that they use in different years, and this was probably an illustration of the phenomenon. At one nest an eaglet jumped out. We copied one of Charles Broley's techniques and hauled it up on a rope tied around its legs. At the other nest, surprisingly, no adult was seen.

The next three days, July 21 to 23, we spent in the Creighton area visiting Mari, Amisk (2), Tyrrell (1), Schist, Golden, Kipahagan (2), Sturgeon (1, 2), and Belcher (1) lakes. Ross Duncan of the Creighton D.N.R. office very kindly took us along on one of his regular flights, allowing us to visit four eagles' nests on the way. At one stop Leonard Ray, a commercial fisherman, took us to one of these. All that remained of a nest which had been an imposing structure only a week before was a jumble of sticks on the ground; it looked as if the limb supporting it had broken in a recent storm. We had all but abandoned hope for the young birds when we spotted them on the ground in a small clearing about 30 yards away. Broley (1952) says that parent eagles will not feed young on the ground, so we found ourselves in a dilemma. However, the eaglets were in good condition, and nearby there were the remains of one or two fish. We thought therefore that they were being fed and decided to leave them; we also asked Mr. Ray to take them fish occasionally. He reported, through Mr. Duncan, that on several subsequent visits, the eagles were doing well.

On the same flight we saw two cliff nests which had been active two or three years previously, although they were empty this year. At one of these

nests the observer, George Barker, had seen only one parent and it had had a dark head and tail. This may have been a Bald Eagle that had not yet attained its full adult plumage, or it might have been a Golden Eagle.

That flight ended the banding season, as the now full-sized eaglets were too often jumping from the nests. One that we measured had a wingspan of slightly over six feet, and we feared real problems if any banding attempts were to be made a week later, when the youngsters would perhaps be able to glide out of sight.

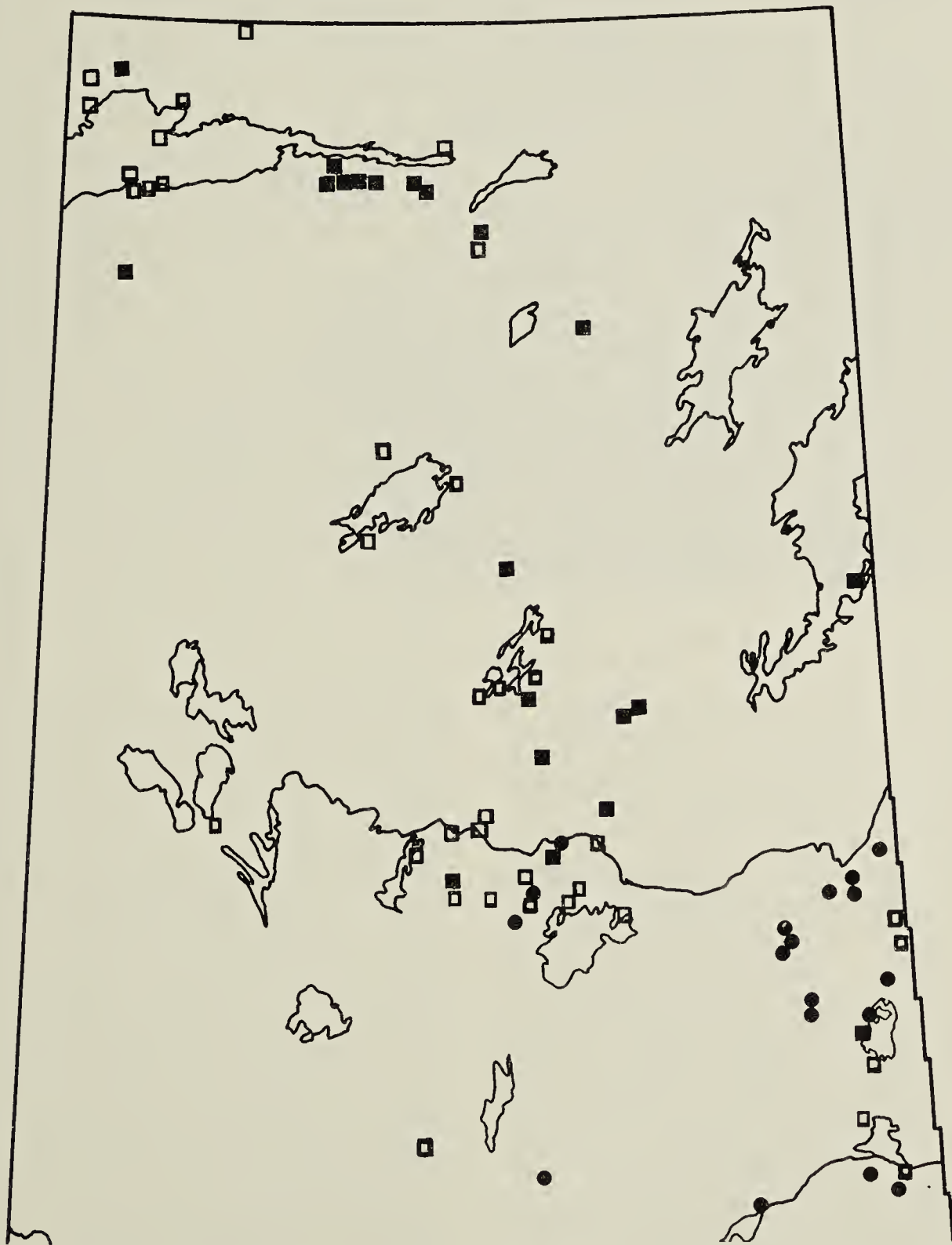
In the course of four banding trips we travelled about 3,300 miles by car and many miles by aeroplane, helicopter, airboat, motorboat and canoe. Twenty-seven eagles were banded in 18 active nests, for an average of 1.5 per nest. In addition to the nests with young, there were five which were likely alternate nests used in other years, four with eagles nearby with no young and six with neither young nor adults. Of the 18 containing young, 13 had remains of fish, one had duck remains and four had no food remains at all. Two nests were on cliffs, 19 in aspen poplar, five in spruce, and three were in jack-pines. All but one of these nests was within 200 yards of a lake shore. The average estimated height above ground was 45 feet with the lowest being 27 feet and the highest 70 feet. Our average of 1.5 young per active nest may be compared with: Hancock (1965) — 1.4 per nest on Vancouver Island; Troyer and Hensel (1965) — 1.6 per nest in the Kodiak National Wildlife Refuge, Alaska; Grier (1967) — 1.7 per nest in northwestern Ontario; Davis (1966) — 1.67 per nest in northern Saskatchewan.

From persons we met or wrote to in the hope of getting information, we obtained the locations of many other eagle nests that were active this year. In the following list, the number of young, if known, has been put in brackets: Laroque Lake (1), Acheninni Lake, Saint Lake (2), 15 miles north of Saint Lake (2), Wapata Lake,

Unknown Lake, Besnard Lake (2), Highrock Lake, Hickson Lake — two nests, the Sturgeon-Weir River upstream from Amisk Lake (2), Reindeer Lake, Rion Lake — two nests (1, 2), Engles Lake — two nests (2, 2), Richards Lake — three nests (1, 1, 1), Carswell Lake (1), Loutit Lake (1), Tsalwor Lake (2), on the river between Deschambault and Pelican

Lakes, and on a small lake south of Waterbury Lake.

Some other 1967 eagle sightings are also noteworthy. In travelling from Otter Rapids down the Churchill River to Nistowiak Falls and then to La Ronge, Dr. R. W. Cram saw five and perhaps six adult eagles and one possible nest. Travelling down the Churchill River between Pinehouse Lake



Map of northern Saskatchewan showing Bald Eagle aerie locations. The circles indicate nests at which the authors banded young in 1967. The solid squares indicate nests known to be active in 1967 but not visited by the authors. The open squares show aeries active in past years, as reported by Davis (1966), Nero (1963), and as seen by the author.



Photo by D. W. A. Whitfield

Bald Eagle about nine weeks old, Bog Lake.

and Trout Lake, August 15 to 22, Tim Jones saw eight eagles, including one immature sitting on a nest at the mouth of the Foster River.

We banded three Ospreys in two nests. These were both at the very top of dead spruce trees, one at 36 feet and the other at 45 feet. No food was found in either nest, although at both, adults were seen carrying fish.

It is perhaps interesting to note that we found a much smaller proportion of Osprey nests compared to eagle nests than Mansell (1965) found in his survey of the Lake of the Woods area. However, we have been told of a concentration of Osprey nests on power poles along a line in Manitoba that runs from north of Flin Flon to Sheridan to Snow Lake. Dick Baker of Parson's Airways, saw 11 nests, seven of them active, in checking about one-quarter of the full

length of this line. Bill Richards mentioned two possible Osprey nest sites on Upper Foster Lake and Dave McLay wrote of one on Reindeer Lake.

Considering the number of nests we found in a very incomplete survey of a very small part of the northern forest of this province, it seems reasonable to conclude that there may be a large number of Bald Eagle nesting territories in Saskatchewan. In 1967 we knew of 42 active nests. Extrapolating the density of their occurrence to the whole part of the province which is covered by both the Northern Coniferous Forest and the Canadian Shield, we arrive at a total population of about 600 nesting pairs. This does not mean that Davis' (1966) warnings are to be treated lightly. We found instances of human disturbance. Five eagles died from eating

poisoned wolf bait last winter and many more that we did not hear of possibly met this fate. One eagle was found dead beneath its nest on Nemeiben Lake. Near a nest in use this year there was a nest tree recently felled by an axeman. At Amisk Lake a nest which we were told had contained eggs at the beginning of the year was empty. At least two eaglets were taken for pets this year. However, local attitudes in northern Saskatchewan are by no means all against the eagles. We met a commercial fisherman, John Enerson, who had set out fish entrails for a pair of eagles last year. (This practice is mentioned by Hancock (1965) as common at some fishing villages along the west coast of Vancouver Island. He states that there was greater nesting success in these areas.)

Although there are a few men like Mr. Enerson, it is still hard to convince many fishermen and trappers that the Bald Eagle plays a useful and important role as a scavenger and that as a predator it is not a significant factor in determining the population levels of prey species.

This year, we made only a small start in what could be a worthwhile study of the Bald Eagles and Osprey of this province. To help us in future work, we ask any reader who knows the location of a nest of either of these species to let one of us know. In addition, any winter sighting of Bald Eagles would be of interest.

ACKNOWLEDGMENTS

We owe a great deal to Dr. C. Stuart Houston who has taught us so much about banding, and under whom one of us holds a banding permit. He supplied much advice and encouragement for this study and corrected the manuscript. We owe a special debt to Hans Dommasch who did such an excellent job of making black and white prints from our colour slides. Dr. H. Dirschl of the Canadian Wildlife Service put a helicopter and airboat at our disposal. To him and to Gary Gentle who drove the airboat, our large thanks. Ross Duncan of the D.N.R. was most generous with his time in taking us

by motorboat around Amisk Lake and making one of his inspection flights on his day off. Our pilot on that occasion, Dick Baker, very kindly checked out several Osprey nest locations. Frank Heidelbauer told us of 10 nests active this year. The following persons we thank for helping to locate nests, whether we got to them or not: Bill Chanin, Lou Kelly, Andy Olson, Joe Schmidt, Ellis Hamilton, Dr. L. C. Coleman, Dr. H. M. Langford, L. K. Lyttle, Andrew Custer, John Custer, Russ Robertson, Mr. Frame of Creighton, Leonard Ray, Angus Bear, Murray Bragg, Mrs. Hill of Anglin Lake, Peter Gerrard, Tim Jones, Dr. Danny McFadden, Robin Casey, Dr. E. M. Nanson, Jake Jacobson, Al Rich, David McLay, Norman Nateweyes and George Barker. Lastly, we wish to thank Mrs. Gerrard for reading the manuscript.

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INFORMATION WANTED ON FERRUGINOUS HAWK

Dr. Stuart Houston is making a survey of the Ferruginous Hawk in Saskatchewan, collecting data on localities (exact section, township and range) where they once nested, and the year they nested last. Their numbers seem to be decreasing even in these years when the ground squirrels are increasing once again; even in areas of ideal habitat in southwestern Saskatchewan they now seem to be relatively rare. Anyone with information on the Ferruginous Hawk is asked to write to Dr. Houston at 863 University Drive, Saskatoon.