ackpine along the valley of the Torch River (**Blue Jay**, Vol. 6, No. 1, . 4).

Billy Matthews saw a Great Gray ear the northeast corner of the Fort la Corne Game Preserve, west of Nipawin, on Jan. 9, 1951 (**Blue Jay**, Vol 9, No. 1, p. 3).

Harry Anaka, Spirit Lake P.O., hot a male Great Gray at dusk on March 27, 1954, thinking it to be a Horned Owl. The specimen was forwarded to the Saskatchewan Museum of Natural History, Regina, where it is now a study skin (**Blue Jay**, Vol. 14, No. 1, p. 11).

A Great Gray Owl was trapped unharmed at the Beaver Creek Game Farm by Keith Thue, and banded by the writer on January 7, 1956 (**Blue Jay**, Vol. 14, No. 1, p. 11).

To date we have no definite record of this species nesting in Saskatchewan.

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Notes on the Barred Owl and the Snowy Owl in Alberta

(A summary of observations of the Barred and Snowy Owls made in Alberta from 1952 to 1957 by A. F. Oeming, President of the Edmonton Zoological Society)

NTRODUCTION

In 1955 A. F. Oeming submitted master's thesis to the Zoology Department of the University of Alberta ntitled *Preliminary Study of the Great Gray Owl in Alberta.* This hesis was a report on a study of he Great Gray Owl carried on for our seasons (1952-1955) in the forest nd muskeg areas of Alberta. During he study, there emerged interesting ecords of the occurrence and distribution of other species of owls n Alberta. Of particular interest, in iew of additional later records sent o the BLUE JAY by Mr. Oeming, are he records of the Barred and Snowy Owls. The Snowy is a winter visitor n Saskatchewan as well as in Alerta, and its movements during the winter season merit study. For the Barred Owl, on the other hand, there re really no authentic Saskatchewan ecords. Perhaps the Alberta discoveries may spark an all-out search or the Barred Owl in Saskatchewan.

BARRED OWLS (*Strix varia*)

Previous to the Great Gray Owl tudy, only four records of the Barred Owl in Alberta were known to Mr. Oeming. During the investigation of he Great Gray, however, eleven records of the Barred Owl were added o the Alberta list. Six of these ecords were published by A. F. Oeming and E. T. Jones in the *Canadian Field-Naturalist* (Vol. 69, pp. 66-67). All eleven records, of course, appear in the thesis. Since the submission of the thesis, Mr. Oeming has these two new records to report:

"April 27, 1957. While on a Grizzly Bear investigation trip I chanced to stop at the Imperial Lumber Camp at Kidney Lake, approximately 38 miles northwest of Fort Assiniboine. Ron Ashmore, foreman of the camp, informed me that he had the carcass of an owl which had entered his weasel trap and which he was unable to identify. The bird proved to be a Barred Owl. The bird was too badly decomposed to make a worthwhile skin.

June 15, 1957. While travelling by pack horse in the Tony Creek country west of the Little Smoky River, I picked up a Barred Owl breast feather on a cut line in heavily treed country. This is a completely wild area but unquestionably this feather came from a Barred Owl in the area."

The eleven records from the thesis and the two subsequent records indicate that the Barred Owl has a general distribution throughout Alberta. Its preference for heavy timber in remote areas has undoubtedly been the major reason for the fact that the bird had hitherto almost

totally escaped notice. With more competent field observers, there is reason to believe that a nest will be discovered in Alberta.

SNOWY OWL (*Nyctea scandiaca*)

This species is a winter visitor to Alberta, arriving as early as September and remaining as late as May. Very few Snowy Owls have been banded during their winter movements and consequently little is known of their routes to and from the Arctic breeding grounds. The main concern of Mr. Oeming's study programme with Snowy Owls, therefore, was banding, and in his thesis he gives the following account of his methods and conclusions. In the interest of banding as many birds as possible, none were collected for stomach analyses, although a thorough study of the bird's food habits in the province is badly needed to ascertain its economic status and the extent of its supposed game depredations. It is difficult to make food analyses for this species from castings or pellets because fresh or drifting snow makes recovery of sufficient pellets uncertain, and because the majority of birds are incessantly moving about.

A special trap was designed to facilitate capture of the birds without injury. An owl was approached, normally within four hundred yards, and while an assistant set up the trap which was baited with a dead pigeon, a live pigeon was allowed to flutter attached to a thirty foot cord. When satisfied that the owl had seen the fluttering bird, a hasty withdrawal was made with the live pigeon. The owl, if hungry, would fly immediately to the spot and pounce upon the dead pigeon, thus releasing the spring action of the trap and instantly throwing both meshed sides over it.

Prior to release after banding, the birds were weighed and the color of the plumage noted. This was an attempt on the basis of weight to corroborate the sex identification based on color (determined earlier by field collectors from sexed skins) which assumed light plumage birds to be males and the dark birds females (Gladden, 1936). As with most raptors, the female is considerably larger than the male.

Photo by Oeming

Close-up of Male Snowy Owl

SUMMARY

1. Twenty-three birds weighed four pounds or over and averaged four pounds eleven and one-half ounces. These were all of dark plumage and considerably darker than the twelve remaining birds which weighed under four pounds each. It may be assumed on the basis of weight that these darker birds were females.

2. Twelve birds weighed under four pounds and averaged three pounds ten ounces. These were all of lighter plumage and in three cases almost totally white. The weight difference would suggest that these were the male birds.

3. The average weight difference between males and females is 15.8 ounces, with the female the heavier bird.

(Note: Added to the 35 birds described above are 17 Snowy Owls taken since the publication of the thesis. Here again the average weight of males and females is very close to that established with the 35 birds. A female weighing 6 pounds 2 ounces, captured after the first 35 were taken, was the record weight recorded in this study of the Snowy Owl).

FOUR YEAR CYCLE OF SNOWY OWL MOVEMENTS

In reviewing the literature of the movements southward of the Snowy Owl, it is seen that in many instances peak numbers have occurred at intervals of four to five years or multiples of that length of time. Gross (1927-31-47) states that this cyclic periodicity is correlated with the established periodic abundance of Arctic Fox and lemmings in the north. Gross recorded peak numbers for Snowy Owls during migration in 1945. Allowing an average of four years for the building up of another peak, peaks should have occurred in 1949 and again in 1953. This was confirmed by personal observation in northern Alberta for those years. Snowy Owls were exceptionally numerous throughout the winter of 1949-50 and again in the winter of 1953-54, when as many as twenty-eight were observed in one day in the Morinville area.

A congregation of numbers for a return movement has been observed in Alberta. From the middle of March until their departure for the north, these owls gather in certain areas in such numbers as to become up to three times as numerous there as in previous months. The Morinville area north of Edmonton is particularly notable in this respect. An almost daily check of this area during March and April, since 1948, offers evidence that a build-up for a return movement takes place during that period. Gross (1947) suggests the build-up for the return movement as a possibility, and the above observations seem to establish this as a fact.

BANDING RECOVERIES

On January 10, 1955, a female owl wearing band No. 509-02669 was captured in the Morinville area, weighing 4 lbs. 10 oz. This bird had been banded exactly one mile from the spot on March 4, 1954, and the weight was identical.

Further recoveries since the publication of the thesis: a dead Snowy Owl female wearing band No. 509-2684 was found in January , 1957 by a farmer in the Namao district, east of Edmonton. This bird was banded in the same area on January 29, 1955. A bird banded by Oeming in the Morinville area, approximately 25 miles north of Edmonton was reported killed on January 21, 1957, 12 miles northwest of Unity, Sask.

On the strength of two returns which indicated the owls did return to the same winter area, one cannot of course establish a definite pattern of migration for Snowy Owls in Alberta. Further study and banding, with more returns reported, will doubtless shed more light on the Snowy migrations.

A PLEA FOR THE SNOWY OWL

Each winter the somewhat drab countryside of the prairies is beautified by the presence of that Arctic envoy, the Snowy Owl. For years the Snowy has been an easy target for those gun-happy souls who thought they might be doing sportsmen and farmers a good turn by shooting it. The work I have done on Snowy Owls has indicated that their diet runs overwhelmingly to mice and small rodents. I have yet to notice any serious depredation by Snowy Owls on Alberta game bird populations. Fortunately, the Alberta Government has acted and placed the Snowy Owl along with all other hawks and owls under complete protection.

During my banding operations I

Dr. Hohn and J. Gadden with female Snowy Owl. Note dark plumage.

A. F. Oeming holding male Snowy Owl with nearly pure white plumage.

have spent countless hours observing Snowy Owls. I have had a ringside view of all their activities, including feeding. My unbiased contention is that we need the Snowy Owl in Alberta, economically and esthetically. Let us forever preserve this noble Arctic visitor. Saskatchewan can help by instituting legislation similar to that in Alberta protecting all the birds of prey. The time to do it is now.

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SIXTEENTH ANNUAL SASK. CHRISTMAS BIRD COUNT, 1957

Send in your report for the **ONE BEST DAY between December 21 and January 1.** (Note these dates carefully; they correspond with the dates chosen by the Audubon Society for the rest of the continent).

List the numbers of each species seen during that day. Following this, list other species seen between Dec. 21 and Jan. 1, other than on the day of the count. List numbers of individuals and the date seen for these birds. List species in the order of the Sask. Field Check-list, Peterson's Field Guide, or Taverner's "Birds of Canada."

If possible, the area should not be more than 15 miles in diameter. Preferably, six or more hours should be spent afield. Counts covering less than two hours will not be printed.

Note the date, hour of starting and of finishing, wind, temperature, whether clear or cloudy, and how many inches of snow. List the total party miles by car and on foot and the total party hours by car and on foot.

Send reports as soon as possible to Dr. Stuart Houston, Box 278, Yorkton, Sask.