

THE

Blue Jay

Vol XIV, No. 2

June, 1956.



MADGE LAKE

—Sask. Govt. Photo

June 9, 10, 1955

Published quarterly by
THE SASKATCHEWAN NATURAL HISTORY SOCIETY.
Membership, including Blue Jay, one dollar yearly.

Blue Jay Chatter

In our March, 1956, issue of the **Blue Jay** we mentioned the controversy in Alberta regarding the protection of hawks and owls. In this issue (p. 47) we are pleased to announce that Ontario is working toward similar protection. Perhaps Saskatchewan can be the third province to give protection to all hawks and owls. Mr. W. Anaka of Spirit Lake has already written to urge us to act on this important question. We discussed the matter at the April meeting of the executive and decided to write to the Game Branch of the Saskatchewan Government asking if the laws which do **not** protect the Snowy Owl, Great Horned Owl, Goshawk, Pigeon Hawk, Duck Hawk, Cooper's Hawk and Sharp-shinned Hawk might be modified. Letters from all of our members would be very greatly appreciated so that we could make a strong appeal for protection for all hawks and owls except when they are actually doing damage.

Our present stand of this question is consistent with that of Mrs. I. M. Priestly, the founder of the **Blue Jay**, for in Volume 1, No. 3, page 24, 1943 she wrote: "We agree that in some extreme cases, where a species has increased out of all proportions and become an economic pest, as have the crow and magpie, wholesale methods of destruction seem advisable. But in many instances, particularly in the case of hawks and weasels, it is often quite sufficient to destroy the individual offender rather than wreck vengeance on the species as a whole. We have seen too much of the destruction of wild creatures, on hearsay or circumstantial evidence, and we ask all our members, particularly the country members, to make a most careful study of any instances of predation that may come their way."

Another wildlife project in which we are greatly interested at the moment is the proposed Regina Waterfowl Park. A committee including representatives from the Regina Parks Department, the Power House, Game Branch, Museum, Fish and Game League, Wildlife Conservation League and the Natural History Societies has been set up to control and publicize this area. Mr. Henry Martz of the Regina Fish and Game League is the chairman. The park will extend from the Regina Powerhouse east to the Transcontinental Highway Bypass. To protect birds there, certain restrictions must be imposed. For example, motor boats will not be allowed in the area nor will people be allowed to fish from the islands. In spite of the expansion of the city, the marsh still provides a home for some 70 different species of birds. Mr. Bard, our Honorary President, reports that 7 Canada Geese wintered here in 1953, 12 in 1954 and 21 in 1955. There are six pairs preparing to nest there now. The young are free to come and go, so they will probably nest elsewhere; perhaps they will return during migration. In the fall of 1954, a wounded Snow Goose rested here for several days. We hope that Mr. Bard's dreams of the development and preservation of this marsh will come true.

The Boy Scout theme for 1956 is **Conservation Goodturn**. The study is subdivided to stress soil, water, forest and wildlife conservation. Let us all follow their example and try to understand the importance of all these factors in the overall picture of conservation. By condemning the indiscriminate destruction of food and shelter plants and by providing more suitable habitat areas for wildlife we can show the Boy Scouts that we, too, realize that Conservation is a "Good turn" not only for today but for years to come.

Congratulations to the Saskatchewan Teachers' Federation for its fine publicity on our Saskatchewan Museum of Natural History. The cover of the last **Bulletin** printed by the Federation shows in color the museum's fine habitat cases of the Whooping Cranes. Future Bulletins will illustrate other habitat cases. Perhaps the Natural History Society could make colored pictures of calendars, showing these habitat cases, available to everybody and thus continue the good work begun by the Teachers' Federation. What do you think?

We shall have an excellent opportunity of becoming better acquainted with the Museum staff at the Madge Lake Summer Meeting which they are helping to plan. We also hope to learn more about the wildlife of that interesting area. This year with our meeting place almost on the Manitoba boundary we wish to extend a special invitation to our Manitoba members. Let us meet at Madge Lake and discuss our mutual problems.

The Blue Jay

Published quarterly by the Saskatchewan Natural History Society
Founded in 1942 by Isabel M. Priestly

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Vol. XIV, No. 2

JUNE, 1956

Pages 37-72

CONTENTS

IN MEMORIAM, <i>Judge L. T. McKim</i>	38
MUSEUM NOTES	39
Whooping Crane, by F. G. Bard, Photos by F. Lahrman.	
A Record of the Packrat in Saskatchewan by R. W. Nero.	
New Museum Display Case Dedicated, painting by R. D. Symons.	
Additional Records of the Short-tailed Shrew, by R. W. Nero.	
BIRD NOTES	47
Progress in Protection of Hawks and Owls.	
Winter Birds, Regina Natural History Society, E. L. Fox	
How to Attract Birds, Mrs. O. Wolters, Tolland, Alberta.	
Wintering Pigeon Hawks, by J. F. Roy and F. W. Lahrman.	
Try Drawing Birdsong, Marian Nixon, Wauchope.	
WINTER DEER FEEDING, 1955-56, by E. M. Morgan, Viewfield	52
BIRDS OF MADGE LAKE, Photos by F. Lahrman (Summer Meeting)	53
PLANT NOTES	56
Plantains of Saskatchewan, A. C. Budd.	
Western Red Lily, B. deVries.	
NATURE'S SCHOOLHOUSE	58
NEWS FROM PRINCE ALBERT NATURAL HISTORY SOCIETY	60
CARP—OUR NEWEST FISH, by F. M. Atton	61
SOVEREIGN BUTTERFLIES OF SASKATCHEWAN, Donald Hooper	62
WHERE IS THE KIT FOX? by R. D. Symons	63
UPS AND DOWNS OF GAME AT CRESCENT LAKE, K. E. Baines	65
SPORTSMEN'S PANEL, CKDM, Dauphin	67
GIDDINGS, FLINT SITE IN NORTHERNMOST MANITOBA, by R. W. Nero	68
ASTRONOMY—FOR THE AMATEURS, by John Hodges	69
SPADE AND SCREEN, by Fred Robinson	70
BLUE JAY BOOKSHELF	72
Wild America, R. T. Peterson and J. Fisher (reviewed by F. Brazier).	

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Membership, including subscription to the **Blue Jay**, \$1.00

IN MEMORIAM

JUDGE L. T. McKIM

In this issue of the **Blue Jay** we pay tribute to an enthusiastic Saskatchewan naturalist, Judge L. T. McKim of Melfort, who died a year ago, in May, 1955. Many **Blue Jay** readers knew Judge McKim personally, and many more knew him through notes and articles contributed to the magazine. In fact, when the **Blue Jay** was first published in 1942, Judge McKim was Honorary President of the Yorkton Natural History Society that sponsored it.

Judge McKim came with his family to the prairies in 1883. On their Manitoba farm, the McKim boys drove five miles to school, and along the way they marked the spots where birds were flushed from their nests. Later, at Deloraine, near Whitewater Lake, there were even more opportunities for watching birds. Ducks and geese gathered here in great numbers in migration. Market hunting still flourished in these days, and Judge McKim has often told of a butcher shop window piled high with geese of several varieties, bearing the sign, "Take your Pick, 25c."

After graduating in law from the University of Manitoba, Louis Mc-

Kim moved to Melville. He remained there for 36 years until his appointment as Judge of the Judicial District of Melfort. It was at Melville that he first started a serious study of wildlife, and for over 25 years he kept bird lists for this area. Many of his records were used by Isabel Priestly and Stuart Houston in compiling the list of the Birds of the Yorkton District (**The Canadian Field Naturalist**, Vol. 63, No. 6).

Judge McKim's interest in birds took other active forms. For years he kept as pets injured birds that were brought to him, a Cedar Waxwing or a Mourning Dove or a Purple Finch. He participated in the Melville sportsmen's experiment in raising pheasants, and when he moved to Melfort in 1945 he set up his own aviary. As a speaker and writer he tirelessly presented the concepts of wildlife conservation. In 1950, this selfless work was recognized when Judge McKim was elected president of Ducks Unlimited (Canada). For his compassionate understanding of the world around him and his contributions to it, the **Blue Jay** salutes the memory of Judge McKim.

North American Co-operative Bird Migration Study – 1956

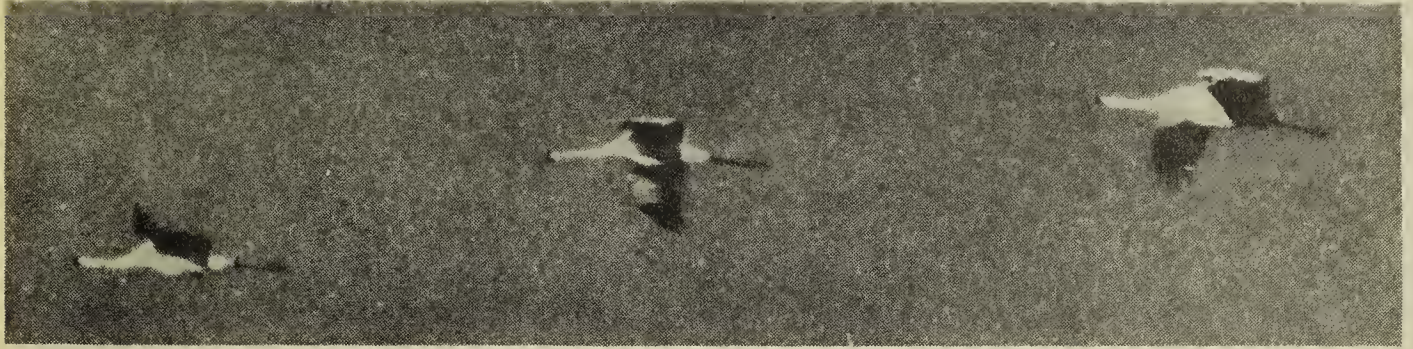
We hope most of our members will take part in this year's bird migration study—in co-operation with bird watchers across the continent. In addition to the first seen dates, make note of any heavy migration waves for the species involved. When possible, give number of individuals seen on the first seen date and number of individuals seen with the peak migration wave for that species. The species chosen are fairly common and easy to identify, so that everyone can take part. These records will be summarized for the **Blue Jay** and then forwarded to Audubon Field Notes and the U. S. Fish and Wildlife Service. Don't delay. Send spring migration dates now to Dr. G. F. Ledingham, Editor of the **Blue Jay**, 2335 Athol St., Regina for the following species: Whistling Swan, Canada Goose, Mallard, Pintail, Marsh

Hawk, Killdeer, Wilson's Snipe, Mourning Dove, Nighthawk, Ruby-throated Hummingbird, Flicker, Eastern Kingbird, Eastern Phoebe, Barn Swallow, Purple Martin, Crow, Catbird, House Wren, Brown Thrasher, Red-eyed Vireo, Black and White Warbler, Yellow Warbler, Myrtle Warbler, Ovenbird, Redstart, Red-winged Blackbird, Baltimore Oriole, Rose-breasted Grosbeak, Goldfinch, Slate-colored Junco, Chipping Sparrow, White-crowned Sparrow, and White-throated Sparrow.

We would like dates also, for any of the following species, less commonly seen in Saskatchewan but being included in the co-operative migration study in the east: Chimney Swift, Crested Flycatcher, Eastern Bluebird, Scarlet Tanager, Indigo Bunting.

MUSEUM NOTES**Whooping Cranes in Migration, 1956**

By F. G. BARD,
Director of Saskatchewan Natural History Museum.



—Photo by Fred Lahrman
The three Whooping Cranes at Pasqua, April 20

On April 20, CKRM carried a report in the noon news of three Whooping Cranes in the Pasqua district. After phoning Mr. Kerfoot, a farmer in that area, and receiving verification of the identification from Mr. A. Benson and Mr. T. Harper, biologists with the Game Branch, Department of Natural Resources, we went out and saw them that same evening. As a result of the co-operation of the farmers in that area and other interested persons we know that the birds rested and fed there from 5:30 of April 19 to at least April 26. We do not know exactly when they left. These three Cranes were a family group consisting of a mated pair and one young.

On Sunday, April 22, I received a phone call from Mr. Jim Hooker of LaFleche, reporting four Whooping Cranes south of Melaval. Mr. Hooker promised to recheck the location of the birds so that I could make a photographic record of the birds there as I had done at Pasqua. Mrs. Art Matthews phoned on Monday morning and Mr. Fred Lahrman and I were looking at the birds by 2:30 that afternoon. Since considerable seeding had already been completed in the area the birds were accustomed to tractors going by in the distance. Mr. Hector Foulkes, on whose land they were feeding, kindly took us on his tractor. We slid off into the stubble about 200 yards from the birds and I took some movies while Mr. Lahrman took some stills. When the tractor returned we climbed on again without having disturbed the birds. Before returning to LaFleche that evening we

built a blind not far from where we found tracks and near a spot where the Cranes had been seen feeding several times.

By 6:30 the next morning we were in our blind anxiously awaiting the appearance of the Whooping Cranes. Within 20 minutes we saw them coming over a small rise to the southwest from a slough where they had apparently spent the night. They came in closer . . . 300 yards . . . 250 . . . 200 . . . 150. They had now separated, the adult birds feeding at some little distance from their twins. We could clearly see the pinkish or rusty wash over the head of one and over parts of the body of the second young one. It was a glorious morning—far warmer than the weather of Regina, 110 miles to the northeast. Filming these rare birds, under such conditions, gave us a morning never to be forgotten. We hoped that there would always be Whooping Cranes and that we would have opportunities like this every year, as we have had now for the past five years.

Although somewhat limited by our blind we continued to watch the four Whooping Cranes. They fed close by and we took various pictures, although perhaps none of these will be as good as the one taken by Mr. Lahrman near Herbert on November 5, 1953 (Blue Jay Vol. XI, No. 4). When the Cranes flew back to the slough we dashed in to LaFleche for a 9 o'clock breakfast and then returned to the field to watch the birds. At 10:30 we saw two birds slowly take off. They flapped to gain altitude and circled. With each circle they gained height. It was not long



—Photo by F. Lahrman

Family of four Whoopers at Melaval

before they were able to take advantage of air currents, and for ten minutes they continued to gain height, "without beating a wing." The birds were now scarcely visible to the naked eye. When you consider the size of the birds with their wings fully expanded you will realize that they were now at least a mile above the earth. We watched them with our glasses as they slowly flew out of sight to the northwest.

We wondered if this was just a morning flight to check flying conditions but, though we waited for four hours, the birds did not return and we must assume that they had resumed their migration. To us, then, this was an important observation. We had seen the effortless flight of birds as they took advantage of the air currents. We had also seen the height at which the birds migrate and realized why there are so few authentic reports of migrating Whooping Cranes. Perhaps it is possible for these Cranes, under favorable flying conditions, to fly from Texas to Saskatchewan without resting. We have the privilege and the responsibility of allowing the birds to rest and feed in our grain fields. Let's promise not to molest them while they are here.

We moved along the road in the car to get a closer view of the two Whoopers who stayed behind. They were the two young birds. We realized now that we had actually witnessed the abandoning of the young

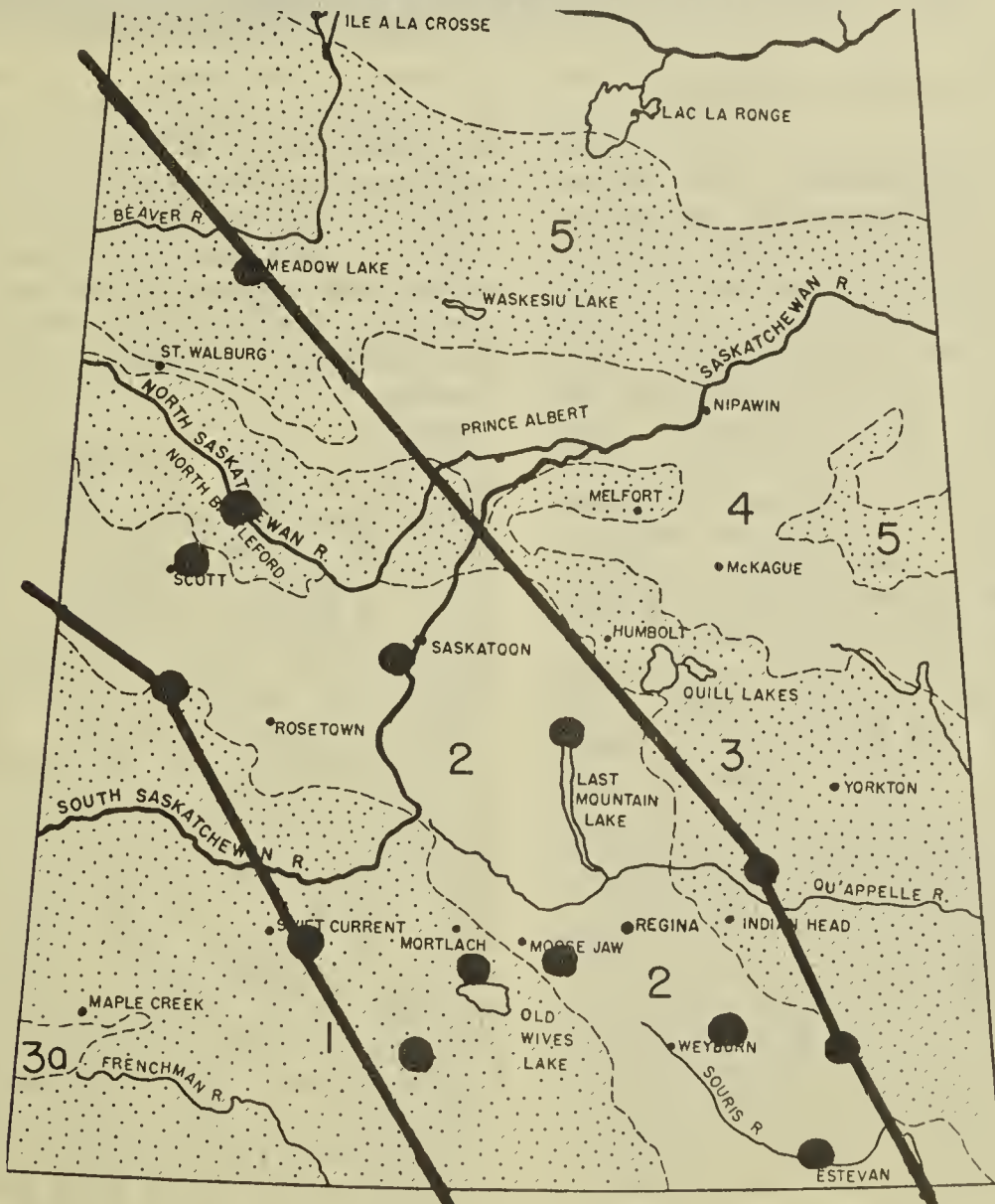
by their parents. We remembered the calling of the birds and wondered if it had come from the parents or the young. Fred and I agreed that it was the young that had made the decision. They did not follow; they remained to rest and feed for several more days in our open South Saskatchewan fields.

The accompanying map shows all the positive locations where Whooping Cranes have been found dead or wounded or where they have been photographed. There have been many reports of Whoopers in flight but it is impossible to verify these reports. We would stress again that migration is usually at high altitudes. If several Cranes are seen at low altitude they should be watched for they may be intending to rest in the area. We appreciate all reports of Whooping Cranes. If they are not observed on the ground, a letter is the best way of sending the information in to the Museum. If the birds are seen feeding, examine them carefully. Watch their behaviour; notice how they walk and how long their legs are—then phone the information in to the Museum. Whatever you do, **DO NOT MOLEST THESE BIRDS.** We will put up signs to prevent other people from trespassing on your land or annoying the birds. We have prepared "no trespassing" signs to post as soon as Whooping Cranes settle in an area. They will help to prevent molesting of the birds and they will keep people from driving over the



—Photo by F. Lahrman

Twin young showing plumage variation



The path of Whooping Crane migration showing location of positive records



—Photo by F. Lahrman

Reminiscing after the Great Opportunity

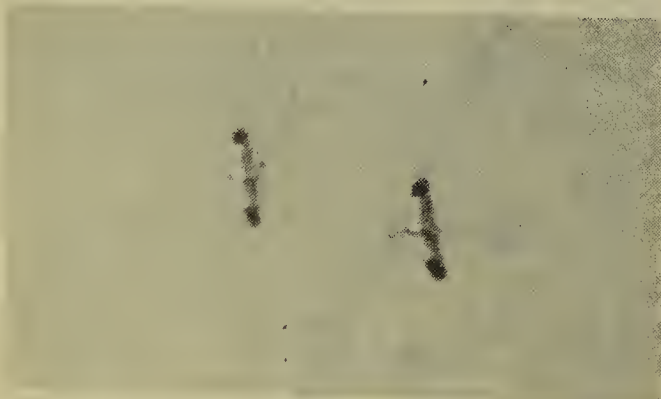
farmer's land. The signs will be picked up when the birds have departed.

Certain organizations are doing good work publicizing the plight of the Whooping Cranes. People generally are sympathetic to these very rare and majestic birds. If people know them I am sure that they are very careful to avoid molesting or harming them. Some natural phenomenon, however, might wipe out the entire Arkansas Refuge flock as the Louisiana flock was wiped out by one storm. **Something positive must be done to build up the population of the Whooping Cranes.**

We suggest that, at least one mated pair should be separated from the group so that the pair may be controlled and the young protected and

allowed to survive to maturity. It is imperative that this management should begin immediately to offer an additional opportunity for the preservation of the magnificent Whoopers. In the meantime, the Museum wants to express appreciation for the concern and co-operation shown by all the people who have reported the Cranes.

Editor's Note: Congratulations to Mr. Bard and Mr. Lahrman who have been so successful in photographing the Whooping Cranes during migration. Pictures have been taken of these rare birds in captivity and also at the Arkansas Wildlife Refuge but Mr. Bard and Mr. Lahrman are among the few who have photographed them on their way to or from Texas to their northern breeding grounds. On April 24, 1956, they saw seven birds in one day: four south of Melaval and three south of Pasqua. We hope to see movies of these birds at our annual meeting in the Museum in October. The one dollar membership in the Saskatchewan Natural History Society gives you the privilege of attending such meetings and gives you a subscription to the **Blue Jay**. Write to E. L. Fox, 1053 Gladmer Park, Regina.

—Photo by F. Lahrman
Migration resumed

A Record of the Packrat in Saskatchewan

By R. W. NERO, Ph.D.



—Sask. Govt. Photo by L. Robinson

On July 17, 1950, a Packrat or Bushy-tailed Wood Rat (*Neotoma cinerea*) was shot by Mr. H. L. Buchanan in the basement of his home at Govanlock, Sask. The specimen was later obtained from Mr. J. M. Lindner by Bruce McCorquodale, Museum Assistant, while returning from a field camp. It was skinned by the latter person under difficult conditions and was later mounted (see photo). This is evidently the first record of this specimen in the province (S.M.N.H. No. 5323).

New records of only one individual are occasionally viewed with some skepticism, particularly when occurring far beyond their known range. In the case of our Wood Rat, however, there seems little doubt that this record actually represents a local population and extends the known range of this species into Saskatchewan. The Wood Rat has been known to occur west of Govanlock in Alberta in the Milk River area according to Rand (1948:163) and Soper (1946:146). It has also been known to occur throughout the badlands of North Dakota (Bailey, 1926:86). Its presence in Saskatchewan was evidently suspected by Burt and Grossenheider since their

range map of this species includes the Govanlock area (1952:113). Its occurrence here might have been expected, considering the presence in the south-west of a number of forms which suggest Upper Sonoran life zone conditions, e.g., Black-tailed Prairie Dog (*Cynomys l. ludovicianus*), Kangaroo Rat (*Dipodomys ordii*), and the Black-footed Ferret (*Mustela nigripes*).

Soper (1938:298) states: "In the writer's opinion, held since 1927, there is a distinct, although probably somewhat dilute, intrusion of the latter zone (Upper Sonoran) from the south into Canadian territory . . . substantially confined to the chief drainage areas leading to the Missouri River." Anderson (quoted by Soper, *op. cit.*:299) suggested in 1937 that the presence of certain faunal forms in this area might be due to the prolonged drought conditions. Soper (*loc. cit.*) adds: "It should be recalled, however, that many characteristic forms of this zone . . . were well established in southern Saskatchewan and Alberta long before the beginning of the present intense drought period dating back to about 1929."

With the addition of this record the Saskatchewan list of mammals now includes 73 species (2 extinct). (Anderson, 1946; Fuller, 1943). An additional 9 species are on the hypothetical list, i.e., they probably occur or are supposed to occur, but have

not been officially recorded. At least 18 of the species listed are represented by 2 or more subspecies or races. The total number of distinct forms of mammals in the province is thus probably more than one hundred.

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NEW MUSEUM DISPLAY CASE DEDICATED



—Sask. Govt. Photo by L. Robinson

The display pictured above is dedicated to the Indians of this region, who occupied these plains and woods for centuries before Saskatchewan became a province, and to their half-brothers, the Metis, who played a vital role in bringing understanding between red man and white.

This impressive display case, with background painted by Mr. R. D. Symons, was officially opened on March 8 by Hon. Mr. J. H. Brockelbank, Minister of Natural Resources. During the dedication ceremony, Hon. Mr. W. S. Lloyd paid tribute to the role played by the Indians and Metis of Saskatchewan in shaping this province's destiny. This tribute was answered by Dan Kennedy. Special guests: Dan Kennedy, Abel Watesch, Harry Littlecrow, Archie Eagle, Joe Ironquill, Councillor Albert Easchappie, Joe LaRocque.

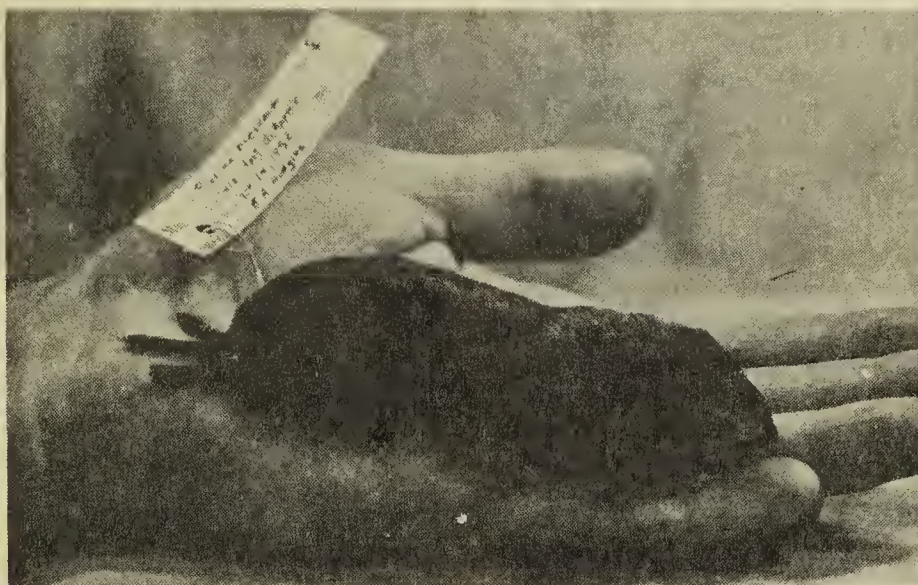
Bird Skins Loaned

The Saskatchewan Museum of Natural History is loaning 21 Saskatchewan bird skins to Cornell University, Ithaca, New York, for evolution studies. The study skins are being sent to Prof. Charles G. Sibley, noted for his studies on the hybridization of birds. Included are five Orioles, six Flickers, one Black-breasted Grosbeak, one Rose-breasted Grosbeak, and one Towhee.

Prof. Sibley will make a statistical analysis of various body measurements and color patterns of bird skins. These characteristics vary with different species and races because changes still are taking place with new species being formed even today.

Additional Records of the Short-Tailed Shrew in Saskatchewan

By R. W. NERO, Ph.D.



Blarina brevicauda (pronounced: bla-rye'-nuh) is the scientific name of one of our most interesting native mammals. Mouse-size and at first glance mouse-like, this dark silver-gray mammal can be distinguished by its minute eyes—one has to look very closely to see them—and its apparent lack of external ears (see illustration). It has twice as many teeth as a mouse, all very sharp and designed for seizing and crushing worms, beetles and other invertebrate animals—its usual food. These are typical characters of all the members of the shrew family. *Blarina* is especially interesting because it is the only really poisonous mammal in North America (most shrews seem to be slightly poisonous). This shrew's salivary glands contain enough venom to kill 200 mice (Pearson, 1942). The glandular secretion is similar to Cobra venom and can cause considerable pain and discomfort to a man. Mice are almost immediately paralyzed when bitten, which explains this shrew's ability to occasionally prey on mice. Perhaps *Blarina*'s most engaging habit is that of immobilizing snails with a slight paralyzing nip and then storing them in underground chambers till needed. Possibly out of respect for the comfort of its numb sweetmeats (!) it occasionally takes them outside under certain weather conditions and when the weather changes, tenderly carries them back to the pantry.

Records of *Blarina* in Saskatchewan are the most northern and most

western for the species, its range being mainly eastern United States. Its occurrence in the province has only been noted recently, although it has been long known in the Turtle Mountains of eastern North Dakota (Bailey, 1926:205) and southwestern Manitoba (Soper, 1946:135). The first mention of *Blarina* in Saskatchewan was made by Anderson (1946:24) who stated that two specimens taken at Grenfell, Sask., (no date given) by a local person, but not preserved, were evidently Short-tailed Shrews. So far as I have been able to determine, seven verifiable specimens have since been taken in the province. The first official report was made by Miss M. E. Barker (1947:199), a specimen having been secured by her after it had been caught by a domestic hen at Abernethy on September 12, 1946 (skull in S.M.N.H., No. 313). This record was also briefly mentioned in the *Blue Jay* (Bard, 1946:23-24). Although believed at that time to be the first specimen for the province, an earlier record exists. An alcoholic specimen in the collections of the Biology Department, University of Saskatchewan (No. M36) was taken on October 24, 1944 at Gerald, Saskatchewan, by the "Martinowsky Bros." An additional specimen in the Biology Department collections (No. M54), also preserved in alcohol, was taken in December, 1954 at Somme, Sask., by R. Hooper, (H. Beck, pers. corres.). This is evidently the northernmost record for the

species. The Saskatchewan Museum of Natural History has skulls of two other Short-tailed Shrews collected at Abernethy by Ralph Stueck (1948; 1951). One other Shrew was found dead in a shop in Regina on August 27, 1953 by Mr. H. Boswell (S.M.N.H. No. 5834, mounted specimen) and most recently a fine specimen was trapped in a cellar at Fort Qu'Appelle on November 14, 1955 by Mr. B. A. Hodgins (S.M.N.H. No. 6021).

The range extension indicated by Miss Barker's report has been incorporated in a general range map presented in an important recent publication on mammals (Burt and Grossenheider, 1952:12). In all probability, Short-tailed Shrews have existed in the areas indicated on our map for a long time, just as they now must exist in other unknown localities in eastern Saskatchewan. Range extension, in this case, implies an extension of our knowledge. More remains to be learned. We still do not know the limits of their local range. Presumably they occupy only a limited area within the province; the discovery of the boundaries of that area will be important.

How far up the Qu'Appelle River valley do they occur? Did they ever cross the Saskatchewan River? Or is this the northern and western barrier? Whatever the story of their distribution, only the careful preservation and recording of specimens will yield the final picture. Accumulation of specimens for positive identification and as permanent records of the fauna of the province is one of the many roles of the museum. Since the museum staff is limited in its field activities, procurement of specimens over a wide area is difficult. Interested persons are invited to contribute to this program. Short-tailed Shrews should be sought in heavy woods or brushy areas or in damp, swampy places. The occur-



● Specimen ○ Report
Sask. Records of Short-tail Shrew

rence of specimens, as pointed out above, in a machine shop and a cellar, indicate that this shrew may, however, be found in nearly any kind of habitat. Both shrews and mice are readily baited to traps with peanut butter. Ordinary mouse-traps do a very quick, efficient job and are relatively inexpensive. Specimens may be mailed to the museum frozen and packed in dry-ice, pickled in alcohol, or as finished skins. Actually, mammal study skins are quite easy to prepare. An inexpensive booklet giving detailed instruction in the preparation of mammal skins is readily available (Anthony, 1925), and a mimeographed instruction sheet may be obtained from the museum free of charge upon request. The skull by itself is identifiable and should always be taken if nothing else can be saved (true of all mammals). Incidentally, anyone with access to an owl roost will find a collection of perfectly clean skulls awaiting his inspection. Some rare mammal records have been obtained from owl pellets, owls (and hawks) being expert collectors of small mammals.

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Progress in the Protection of Hawks and Owls

In the matter of the protection of hawks and owls one of the most progressive provinces in Canada is the province of Alberta. In Alberta the Golden Eagle is the only predator not legally protected. Recent representations from groups in Alberta desiring to have this law repealed in order to re-open legal shooting of hawks and owls have fortunately been unsuccessful. During discussions of the issue, the existing government legislation has been strongly supported by the Edmonton Bird Club which presented an able brief prepared by its Predator Committee (cf. *Blue Jay*, Vol. XIV, No. 1). It is interesting to know that the two major farm organizations in the province, the Alberta Federation of Agriculture and the Farmers' Union of Alberta, were also emphatic defenders of the law.

Now, naturalists in Ontario are fighting for similar protection for birds of prey. A copy of a brief submitted by the Audubon Society of Canada to the Fish and Game Committee of the Ontario Legislature, March 12, 1956, has been sent to the Editor of the *Blue Jay* by John Livingston, executive director of the Audubon Society of Canada. The brief outlines the history of the campaign for the protection of predators, and gives the main arguments justifying protection.

Ever since 1932 Ontario naturalists have tried to get legislation protecting hawks and owls. Eagles and the Osprey are the only predators now protected. Although no Canadian province has yet adopted the ideal legislation that exists for example in the states of Connecticut, Michigan, and Indiana, there are three that are notably advanced: Nova Scotia, Manitoba and Alberta. In Nova Scotia, all hawks and owls are protected except the Goshawk, Sharp-shinned Hawk, and Great Horned Owl. In Manitoba, all hawks and owls are protected except the Goshawk, Sharp-shinned Hawk, and Snowy Owl. In Alberta, as we have already seen, only the Golden Eagle is not protected. Ontario is felt by

naturalists to be far behind these forward-looking provinces.

In its brief, the Audubon Society expressed the conviction that the arguments for protection, though familiar, bear repeating. Certain hawks and owls, for example the rodent-destroying *buteos*, have of course long been considered beneficial—especially since Taverner in his *Birds of Canada* established their "economic status" by his convincing series of stomach analyses. Blanket protection of birds of prey is necessary to guard even these obviously invaluable mousers against the shooter who mistakes them for so-called "chicken hawks." In addition however, we must consider other hawks and owls which have until recently been regarded in an unfavourable light. Today's ecological findings show that it is difficult to classify any living creature as "harmful." Certainly, under natural conditions, such hawks as the Goshawk, Cooper's and Sharp-shin do take birds. So does the Great Horned Owl. But predation is one of the controls that nature uses to maintain a healthy wildlife community. Surplusage of game birds and song birds are continually being cropped by birds of prey and other predators. Without control, any given species will increase beyond its food supply and its surplus is thus doomed to succumb to starvation and disease. Predators help to ensure that this situation does not come about. Further, by cropping the weaker individuals, predators help to guarantee a healthy and vigorous breeding population.

These arguments are valid in natural or wild conditions. Everyone is ready to accept their limitation in one artificial situation of major significance, namely, the farm. Depredations upon poultry by birds of prey must be stopped, if necessary by shooting. With this one reservation in mind, the Audubon Society has framed the following recommendation which it hopes will be received sympathetically by the Ontario Legislature:

In Ontario every hawk and owl should be protected except that the owner of poultry or other domestic animals and the members of his immediate household

and his bone fide employee may destroy by shooting any hawk or owl which is doing real damage to the said poultry or other domestic animals.

Regina Natural History Society: List of Winter Birds (1955-56)

By E. L. FOX, Chairman, Bird Group,

Species listed are those observed November 1 to February 29 in the Regina area by F. Bard, M. Belcher, F. Brazier, E. Cruickshank, E. Fox, S. Jordan, F. Lahrman, G. Ledingham, M. Ledingham, L. Murray, and R. Nero.

During the winter, the open water at the Powerhouse supported a number of waterfowl. Supplementary feeding was carried on by the Powerhouse staff with the Regina Fish and Game League supplying food. Species present: Pied-billed Grebe 2; White Pelican (one on the lake for a week early in November - E. Fox); Whistling Swans 2; Canada Geese 24 (three killed and one injured by intruders late in the winter); Mallard 200 est.; Pintail 3; Green-winged Teal 2; Lesser Scaup 5; American Goldeneye 5; American Merganser 1 (F. Lahrman); Coot 1.

A feeding station in the Legislative Building Grounds proved productive. Black-capped Chickadees, Hudsonian Chickadees and Red-breasted Nuthatch could be observed feeding or in the area on most occasions. A Brown Creeper, a Slate-coloured Junco, and a White-throated Sparrow stayed until well into December. A Northern Shrike, probably attracted by the small birds, was also present. On one occasion the Shrike was observed carrying a freshly killed Red-breasted Nuthatch in its feet (F. Brazier). In the same area there were Pigeon Hawk 2; Hairy and Downy Woodpeckers; Golden-crowned Kinglets until late December); Pine Grosbeaks; Evening Grosbeaks 1 (F. Brazier); Purple Finch 2 (F. Brazier); Hoary Redpolls; Common Redpolls; Red Crossbills; White-winged Crossbills.

It is interesting to note the influx of winter birds into the Regina area this year, and to compare this list

with that of 1954-1955 (Blue Jay, Vol. XIII, No. 2). Pine Grosbeaks, Red and White-winged Crossbills have been observed on most field trips and in greater numbers than for the past few years. The Hudsonian Chickadee observed occasionally most years has been resident this winter. Hoary Redpolls, recorded on a number of occasions in the city, have been observed in large flocks along roads leading out of the city. This frosty little bird which had been considered quite rare in this area was a very interesting addition to our winter list.

(Editor's Note: Stuart Houston and Frank Roy have both reported Hoary Redpolls near Saskatoon this winter, and we have a record from Wm. Anaka who identified a Hoary twice this winter at Spirit Lake. See also the Christmas Bird Count 1955. Apparently the Hoary Redpoll is more prevalent this year throughout the province.)

Interesting too is the fact that the Short-eared Owl reported frequently last year was not recorded. The Snowy Owl was rare, indicating an approach to the low point of its cycle of migration. No doubt the very severe winter and deep snow were factors in a more southerly migration of many species.

The following additional species were reported from other areas of the city: Sharp-tailed Grouse (group of 8 in the Provincial Nursery); Hungarian Partridge; Ring-billed Gull (one in November by F. Brazier); Snowy Owl 1; Saw-whet Owl (one by S. Jordan); Magpie; Robin (3 in November); Bohemian Waxwings (frequently throughout the city); Cedar Waxwing (one with a flock of 16 Bohemians observed on several occasions in November); English Sparrow; Rusty Blackbird; Pink-sided Junco (November); Snow Bunting. Total: 42 species (21 winter birds; 10 waterfowl on open water; 11 stragglers).

How to Attract Birds

MRS. O. L. WOLTERS, Tolland, Alberta

"How do you get birds around your place?" was a question asked me once by a young enthusiast. "Set a table for them!" I replied. By that I meant plant some red osier dogwood, wild or tame honeysuckle, mountain ash, chokecherries and saskatoons. Berries of the latter do best planted in fall, and the trees quickly grow to fruiting age.

Plant these trees and shrubs near the house so that birds feasting on their berries can be easily observed. Last summer, just outside our dining room window, a pair of Catbirds fed their young with white dogwood berries, chokecherries and saskatoons. As the Catbirds nearly always let us know when they arrived, many a canning and freezing "operation" was held up for a time in order to watch the parents fill the young birds' mouths before flying off again to the windbreak.

Cedar Waxwings and Grosbeaks seem to prefer honeysuckle, although the Waxwings seldom leave many berries for the latter birds which come in winter. Our ornamental crabapple has really given us a lot of pleasure this past winter as we have seen flocks of Grosbeaks come

to it to nibble at the apples. Some Bohemian Waxwings have come too, and a pair of Blue Jays just this morning (Feb. 9, 1956), with a Part-ridge night and morning just between the two lights. Needless to say, there aren't many apples left. I wish I hadn't used any for jelly! Last year most of the apples remained on the tree, probably because the snow wasn't very deep and birds were finding wild berries. In the spring after the big snow-storm as many as eleven Robins were feeding on a red elderberry and neighboring flowering currant at one time.

Sunflowers growing in a corner somewhere attract Chickadees and Blue Jays, and lettuce allowed to seed is found by yellow Goldfinches.

So, come spring, take a shovel, an old tub, and some lunch, and pile the family in a car for a picnic to the nearest coulee or river bank and find a few berry bushes to transplant to your yard. In addition to the shrubs I have already mentioned, you might try a hawthorn with its bright berries, or a birch tree, or a small spruce to add colour and to attract the winter Grosbeaks to the shelter of its evergreen branches.

Mourning Dove Information Wanted

The United States Fish and Wildlife Service wants more information on the Mourning Dove so that adequate protection can be given to this bird. Since the Mourning Dove is treated as a game bird in the southern part of its range, management and protection are essential.

Active Mourning Dove banding is urged throughout the entire breeding range of the dove. Since doves start nesting early in the spring and continue until late in the fall it is desirable to band birds from all broods throughout the year. Normally only those with banding permits may band birds, but since the Mourning Dove is easily identified any person over 18 who can recognize the bird and will keep accurate records may apply to the Bird Banding Office, Patuxent Research Refuge, Laurel Maryland for a dove banding permit.

Nestling doves may be banded at

any age. If the nestlings are very young "Dalzoflex" elastic adhesive tape, which is supplied upon request, may be used to keep the size 3A dove band from slipping off. If the nestlings are nearly ready to leave the nest they may jump out after being replaced. If the birds act as if they intend to jump both hands should be placed over the nestlings, keeping them quiet and in the dark for several minutes will usually prevent premature jumping from nests.

This is an excellent project in which we can co-operate with people all over North America. Younger people can help by locating nesting sites and reporting them to the banders. The return on dove banding is high. When your results come back from the United States Fish and Wildlife Service please send them to us so that they may be printed in your magazine, the **Blue Jay**.

Wintering Pigeon Hawks

By J. F. ROY, Saskatoon

How frequently does the pigeon hawk winter in Saskatchewan? During the past eight winters this bird has been reported from four widely separated areas. On December 31, 1948, Maurice Street of Nipawin recorded the first wintering pigeon hawk in the annual Christmas Bird Count (**Blue Jay**, Vol VII, No. 1, page 12). Three years later, December 26, 1951, Yorkton observers added a second wintering bird to the provincial records (**Blue Jay**, Vol. X, No. 1, page 15). During the winter of 1954-55, the Regina Natural History Society studied a bird which frequented the grounds of the Legislative Buildings (**Blue Jay**, Vol. XIII, No. 2, page 39). Again, on December 26, 1955, Regina members were able to add a pigeon hawk to the Christmas Bird List. (**Blue Jay**, Vol. XIV, No. 1, page 6).

Now it is Saskatoon's turn. The writer and Bernie Gollop have each seen the pigeon hawk on two occasions this winter. The first bird was noted flying over the Saskatchewan River, February 15, 1956. Three days later one pigeon hawk was noted two miles south of the city and another was seen within city-limits. The last observation was made on February 19 when Bernie Gollop noted the hawk along the highway five miles east of Sutherland. It does not seem likely that all four records were of the same bird.



—F. W. Lahrman
Richardson's Merlin

The evidence is that the pigeon hawk is a sporadic winter resident in Saskatchewan. Since the inauguration of the Christmas Bird counts many new facts about winter distribution have come to light. It is likely that many more of our hawks and owls remain for the winter than was once suspected. Short-eared owls and prairie falcons, for instance, turn up every year in the bird counts. Any observations of wintering pigeon hawks and prairie falcons would be most welcome.

EDITOR'S NOTE: The Saskatchewan Museum of Natural History has a recent specimen record of the Pigeon Hawk (6046 — study skin). This specimen was received December 17, 1955, from Frank Brazier who picked it up dead in the Legislative Grounds, Regina. It was identified as a female Richardson's Merlin (*Falco columbarius richardsoni*).

Try "Drawing" Bird Song

By MARIAN NIXON, Wauchope, Sask.

When trying to identify a new bird, from illustrations in a book or its descriptive test, one often thinks, "If they only gave its song, how much simpler identification would be!" But to date, I have found only one book, Schuyler Matthews' **Wild Birds and their Music** that helps one in this way.

However, I worked out my personal method of recording birdsong, which acts as a sort of shorthand of their music which I can later

interpret with the ear of memory.

You will have noticed that it is hard for some children, and even older persons, to remember just how a certain bird tune goes once they no longer hear it. Again, when another spring comes, a song is remembered as familiar yet one cannot remember which bird it was that used those notes.

When a person deliberately tries to make a memory last, one notices more carefully the various details.

One can improve the hearing-memory just as one can improve the visual memory, and often one sense is used to help and impress the other. So, by "drawing a song" sight aids hearing, just as you often touch an object to help you see it in your memory.

This is what I mean by "drawing a song." One can draw a line, or graph, of the rises and falls in the bird's melody. By the heaviness or thinness of line, one can also show whether the notes are loud or soft, and one can even show if they come fast or slowly.

For instance, the Redwing blackbird's song is "conk-er-eee." When drawing it, the first syllable is the starting point in the line, the "er" is very slightly lower, and the "eee" rises in a sharp, curving line.

The Brewers' blackbird son is not so loud, so the line will be lighter and the cadences inverted, the line first holding a rising curve and then falling away again.

Try drawing what a crow says and you will find it a series of short, heavy lines, ever so lightly bulged in the centre. Then try marbled godwit's "Korreck, korreck" and see how different it looks from a crow's.

In contrast to these rather staccato calls, draw the haunting, long swelling then fading curve of the Upland plover's whistle.

Do you remember in **Freckles and Girl of the Limberlost** how birdsongs were mimicked on a violin. They were, of course, played by ear, but if those notes had been copied down onto a score of music as each note was identified, a continuous line joining them would match just such a chart as I am suggesting you should draw.

So be sure to keep a pencil and paper in your pocket, to draw a bird's song as well as to describe the details of its size and plumage. When making a chart of "birds seen," the added information about song will make it just that much more interesting, and valuable in the recognition of species in following years.

Again, when birds have settled on their nesting territories you will notice that all meadowlarks, for instance, do not sing absolutely the same order of notes. Perhaps you

could show, by a chart such as this, how the two songs sung by individuals of the same species are different. Then in the fall, compare the spring song graph with the one you draw of the autumn song. I think you will find that the fall song is shorter, and the uplifting notes at the end are apt to be missing.

But apart from trying to keep its song in your exact memory, do use a pencil and paper when watching a new bird. Write down everything you see about it . . . whether it has a white line over its eye . . . or not; whether the breast is pale, streaked, or has a spot, or more than one of these. Notice, and write down, details about white on wings or tail. Often it is just one of these small details that is needed to make recognition certain, when you compare descriptions in a bird guide..

It is a good idea to study the bird books in advance, for then you have more of an idea what to look for in the strange migrant if you come upon one unexpectedly. It is not often that a bird will wait while you run home for the book, bring it back and leaf through the pages to compare picture with reality. But while you do watch the strange visitor, let us hope it gives you opportunity also to "draw its song."

Lynx seen swimming in the Lac La Ronge area. — While prospecting in the La Ronge area in July, 1955, Mr. Czartoryski of Regina saw a Lynx swimming from the mainland to an island about 300 yards off shore. The lynx was making good progress, but when circled several times by the boat seemed to resent the interference and returned to the mainland. Observers: Mr. Czartoryski, Christopher Czartoryski, Jim Shamback, John Bird.

SAY'S PHOEBE. In the next issue of the **Blue Jay** we will print a description and an account of the occurrence of the Say's Phoebe in Saskatchewan. If you are acquainted with this bird please send notes or records to the **Blue Jay** Editor, 2335 Athol St., Regina. Please help to make this article as complete and valuable as possible. Which bird would you like for the December issue?

Notes of Interest

SAW-WHET OWL: Mrs. F. A. Wilson of Struan, Sask. reports seeing an unfamiliar little owl face from her kitchen window during a blizzard last winter (1956). The tiny owl stayed perched on a branch close to the tree trunk until dark and Mrs. Wilson tentatively identified it with the aid of Taverner as a Saw-whet. Another report of a Saw-whet Owl comes from Mrs. Lillian Mona Smith of MacDowall, Sask. She and her husband saw one in their barnyard on January 11, 1956.

SANDHILL CRANES IN RETROSPECT is the title of an article by one of our members, H. H. Pittman, in *Nature Magazine*, Vol 49, No. 5, May 1956. Mr. Pittman's photos and recollections of Sandhill Cranes nesting near Wauchope, Sask., make one realize how the distribution of breeding birds has changed in the province.

WINTER RECORD OF SHORT-EARED OWL: Highlight of the winter's birding for William Anaka at Spirit Lake was the identification of a Short-eared Owl on January 20, 1956. This is William Anaka's first winter record for the species.

WINTER DEER FEEDING 1955-56: The early heavy snows of the past winter, followed by sleet and rain that crusted the snow, made it difficult for deer to paw through the crust to find food. E. M. Morgan of Viewfield, put out feed for deer in his barnyard because he saw that they were no longer able to find anything to eat other than a few weeds and sweet clover above the snow, some snowberries, and buds of poplar and willow. The 25 to 32 deer that came for feed consumed daily about 1½ bushels of oats (or two bushels of flax and wheat screenings) and one 90 pound bale of alfalfa. A survey made by Mr. Morgan among the farmers of an area 18 miles square revealed that there were about eight herds of deer with 10-30 deer in each herd. Once accustomed to feeding in the barnyard, the deer seldom wandered more than a mile away and often bedded down near the feed till morning.

BIRD BANDING AT SWIFT CURRENT: Arthur Ward has been ill this past year and unable to make frequent trips to the farm, so he has set up a banding station at his home in town. By April 8, he had banded 30 Tree Sparrows in succession without any other species coming to his traps. Mr. Ward has been banding birds in Saskatchewan since 1926 when he began by banding two Black-billed Cuckoos. Mr. Ward is to be congratulated on being chosen by the Swift Current Rotary Club as "Man of the Year" for 1956.

COMMENSAL FEEDING OF DUCK AND GREBE: J. H. Taylor, Regina, sends this note. "In the last *Blue Jay*, Dr. Nero's article on Commensal Feeding of Muskrat and Rusty Black-bird brought to my mind another incident in which I was a witness of commensal feeding. Many of the *Blue Jay's* readers will remember Hugh Boyd's nature stories which ran in the *Leader-Post* in the middle thirties. In one he told of seeing a female duck (Mallard) and an Eared Grebe bill to bill eating a salad course one afternoon on Wascana Lake. The duck, a non-diver, would swim around in circles while the grebe was under water bringing up a further supply of greens. It scarcely need be said that this took place in the fall as birds are anything but social in the breeding season.



—Photo by E. M. Morgan
Deer feeding in yard.

Birds of Madge Lake

Introduction: The summer meeting of the Saskatchewan Natural History Society will be held this year at Madge Lake in the Duck Mountain Provincial Park. In its two-day programme of field trips, the Society will be studying an area in which serious field work has already been done, notably by parties from the Provincial Museum of Natural History who visited Madge Lake in 1926 (from May 6 to June 19) and again in 1951 (from May 15 to June 22). It should be interesting to compare the records of observations which will be made by members of the society at the summer meeting in 1956 with the list of birds established for the area by the Museum camp in 1926 and 1951.

The Area. Madge Lake lies 150 miles north-east of Regina, about two miles from the Manitoba border, in the well-wooded hills of the Duck Mountain Reserve. Although Madge Lake is not actually in the Canadian Zone, since it lies geographically somewhat south of it, its plant and animal life is typical of the Canadian Zone. The characteristic Canadian Zone flora and fauna plus the influx of Transition Zone species make it one of the most interesting spots in the province. In the report of the Provincial Naturalist for the year ending April 30, 1927, H. H. Mitchell describes the following characteristic features of the area—dense underbrush among the thick stands of poplar, spruce and birch; masses of huge ferns growing to a height of from four to five feet, with other species that include the so-called Maiden-hair fern well known in Ontario; the orchid known as the Lady's Slipper; marmot, deer, red squirrels, and a bear that appeared one day at camp.

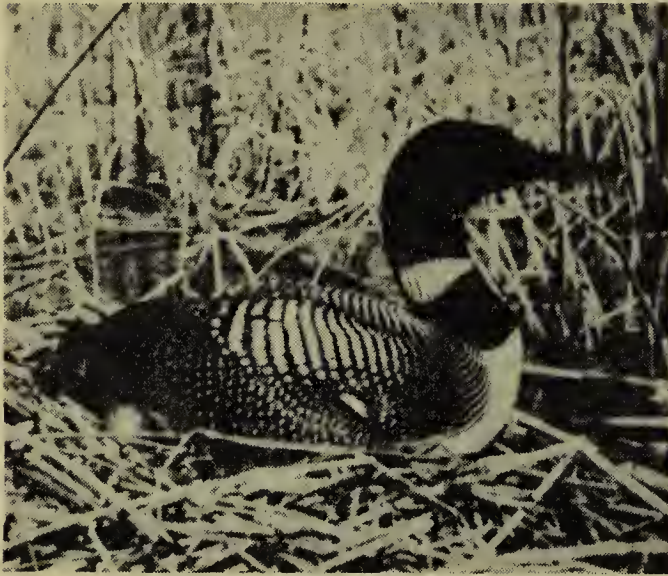
Characteristic Birds of the Area

Noted by the Museum Party

May 6—June 19, 1926

Readers of Taverner's **Birds of Canada** will remember the following species that Taverner lists as especially typical of the Canadian life zone: Brown-capped Chickadee, Olive-backed Thrush, Hermit Thrush, Three-toed Woodpecker, Canada Jay, White-throated Spar-

row, Junco. Mitchell's comment on what he found most striking in the bird life of the district supplement Taverner's list. "The surprising number of Crested Flycatchers seen," he reported, "indicated it a common species, though so scarce elsewhere in the province. Warblers were well represented and among these was found another surprise in the numbers of Blackburnian Warblers seen, probably the most brilliant of this family of tiny, bright-coloured woodland birds. Specimens secured of Blackburnian Warbler, Connecticut Warbler and Philadelphia Vireo are all new to the museum collection of mounted birds, as was also the Ring-necked Duck, scarce elsewhere in the province but common here. The American Golden-eye was the common duck of the lake, but the Ring-necked seemed to prefer the numerous sloughs or small lakes scattered over the district, especially those bodies of water where water lilies grew, indicating, one would suppose, purer water (less alkaline) than others . . . Pelicans were for some reason absent, with a scarcity of Cormorants equally inexplicable, as the lake is well stocked with fish, pike for the most part, but also fine pickerel. Common Loons were very numerous, unusually tame and always interesting with their evident sense of curiosity and weird notes and calls which they kept up day and night. Several nests of this diver were found, each with its handsome, dark coloured eggs. Two sets taken for specimens were replaced within a few days in each case; very few other birds will lay a second time in a nest robbed or disturbed, which is usually deserted and a new one built. Vultures, with their grand soaring flight, were always to be seen, also in unusual numbers. The presence of Canada Jays, Pileated Woodpecker, Hudsonian Chickadee and Swamp Sparrow all breeding there would indicate a northern influence besides the eastern, before mentioned." A list of the birds positively identified by Mitchell and the Museum staff in the district was published in the Kamsack Times, June 18, 1926, to stimulate a local interest in natural history.



Loon



Red Squirrel

LIST OF BIRDS RECORDED AT MADGE LAKE BY THE MUSEUM PARTY
MAY 15 - JUNE 22, 1951

The 1951 Museum Camp arrived at Madge Lake May 15 with F. G. Bard, F. W. Lahrman and A. E. Swanston in the party. The sky was overcast, the weather was cold, and it was snowing lightly. The trees were just beginning to turn green. Birds recorded: Common Loon, Holboell's Grebe, Western Grebe, Pied-billed Grebe (Pelican), Great Blue Heron, Bittern, Canada Goose (captive), Mallard, Black Duck, Baldpate, Green-winged Teal, Blue-winged Teal, Ring-necked Duck, Canvasback, Lesser Scaup, American Golden-eye, Buffle-head, White-winged Scoter, American Merganser, Red-breasted Merganser, Turkey Vulture, Goshawk, Sharp-shinned Hawk, Cooper's Hawk, Red-tailed Hawk, Swainson's Hawk, Marsh Hawk, Bald Eagle, Osprey, Sparrow Hawk, Ruffed Grouse, Ring-necked Pheasant (introduced), Virginia Rail, Sora Rail, Coot, Killdeer (Lesser Yellow-legs), Spotted Sandpiper (Ring-billed Gull), (Franklin's Gull), (Bonaparte's Gull), Common Tern, Black Tern, Mourning Dove, Horned Owl, Nighthawk, Ruby-throated Hummingbird, Belted Kingfisher, Yellow-shafted Flicker, Yellow-bellied Sapsucker, Pileated Woodpecker, Hairy Woodpecker, Downy Woodpecker, (American Three-toed Woodpecker), Eastern Kingbird, Eastern Phoebe, Crested Flycatcher, Traill's Flycatcher, Least Flycatcher, Olive-sided Flycatcher, Wood Pewee, Tree Swallow, Bank Swallow, (Cliff Swallow),

Purple Martin, Canada Jay, Blue Jay, (Raven), Crow, Black-capped Chickadee, Hudsonian Chickadee, Red-breasted Nuthatch, House Wren, Catbird, Brown Thrasher, Robin, (Hermit Thrush), Olive-backed Thrush, Veery, Ruby-crowned Kinglet, Cedar Waxwing, Yellow-throated Vireo, Blue-headed Vireo, Red-eyed Vireo, Philadelphia Vireo, Warbling Vireo, Black and White Warbler, Tennessee Warbler, Nashville Warbler, Yellow Warbler, Myrtle Warbler, Black-throated Green Warbler, Blackburnian Warbler, (Chestnut-sided Warbler), Black-poll Warbler, Palm Warbler, Ovenbird, Water-thrush, Mourning Warbler, Canada Warbler, Yellow-throat, Redstart, House Sparrow, Yellow-headed Blackbird, Red-winged Blackbird, Baltimore Oriole, Bronzed Grackle, Rose-breasted Grosbeak, Purple Finch, (Pine Siskin), Goldfinch, Red Crossbill, Slate-coloured Junco, Chipping Sparrow, White-throated Sparrow, Swamp Sparrow, Song Sparrow.

Apart from the names in brackets, all species listed are assumed, on the basis of nest records or of sight records in numbers and at a time of year which would suggest nesting, to be breeding birds. The **YELLOW-THROATED VIREO** is an especially interesting record as the specimen taken at Madge Lake June 4, 1951, by Fred Lahrman is the first provincial record for the species (*Blue Jay*, Vol. XI, No. 1, p. 19).

SUMMER MEETING AT MADGE LAKE

An enjoyable and educational two-day program has been arranged for June 9 and 10. Come early and get in at least one full day of birding, botanizing and photography. Boat trips leave at 8:00 a.m. There will be a program of films Saturday evening. Phone Johnny Herron, Resort manager, Duck Mountain Provincial Park, Kamsack, Sask., if you want sleeping accommodation at the lake.

Madge Lake Photos by F. Lahrman



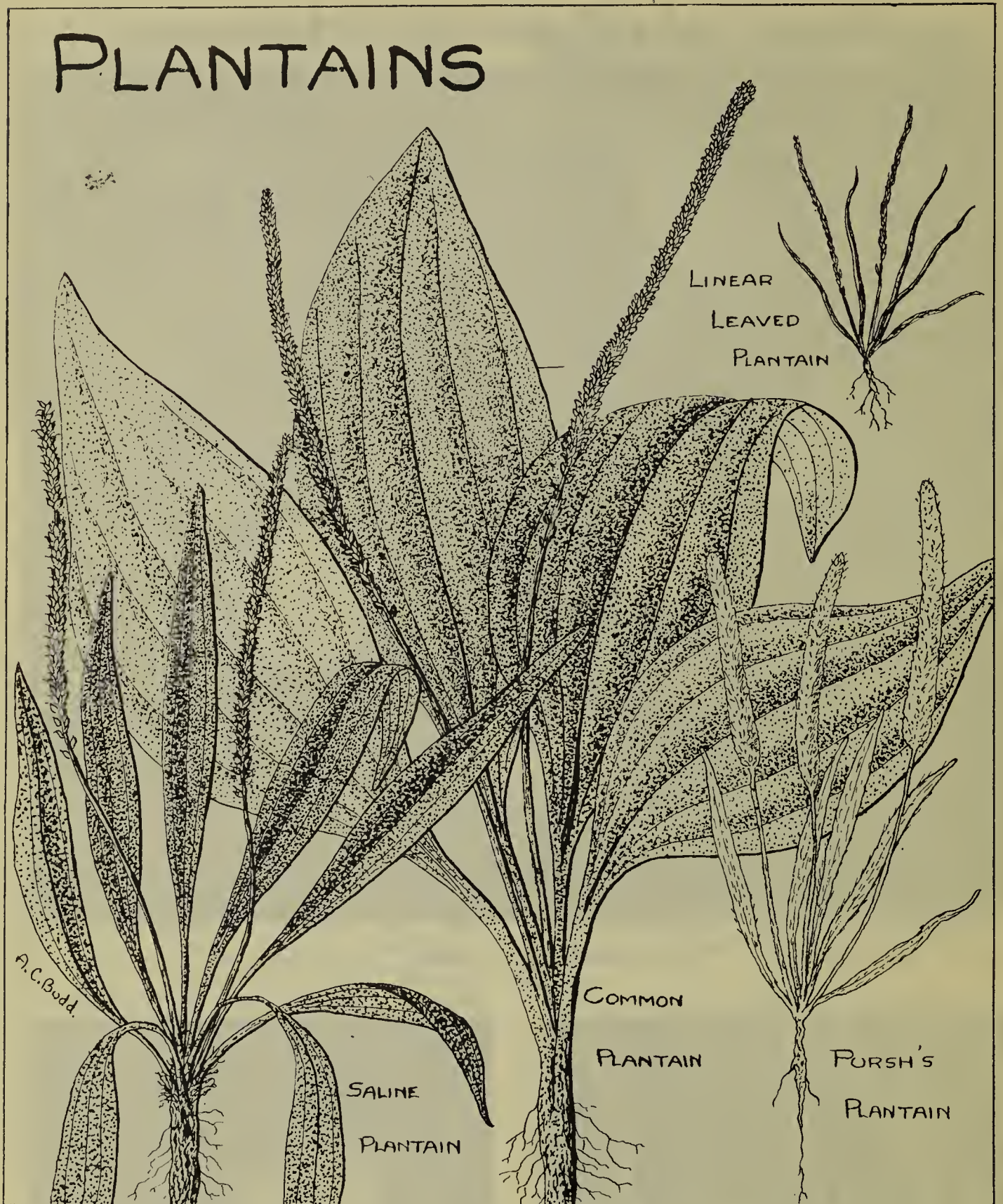
Yellow Lady's Slipper



Horned Grebe



Eastern Phoebe



The Plantains of Saskatchewan

By ARCHIE BUDD

The Plantains or Ribworts are a genus of plants found in most parts of the world and there are thought to be more than 250 separate species. The scientific name of *Plantago* applied to this genus means "footprint" from the shape of the leaf of the commonest species, *Plantago major* L. This is the Common or English Plantain, which has been carried by the white races to almost every parts of

the globe, and is often called "white-man's foot" by the coloured races. Plantains are characterized by longitudinally ribbed leaves, very minute whitish flowers borne on long rat-tail like spikes, and by the leaves and flowering stems all arising from the crown of the root. The fruit are small capsules and at maturity the top falls off, releasing the several tiny seeds. This type of fruit is

called a pyxis, meaning a box.

In Saskatchewan we find six species, four of which are fairly plentiful; one is quite rare and the other one found, but not persisting, on newly seeded lawns sown to eastern or far western grass seed.

A simple key to determine the Saskatchewan species is as follows:

1. Leaves linear to thread-like—2. Leaves lanceolate to ovate—4.

2. Leaves densely whitish, silky-woolly—*Plantago Purshii*; Leaves green and hairless—3.

3. Inflorescence with bracts at least twice as long as the flowers—*Plantago spinulosa*; Inflorescence with bracts less than twice length of the flowers—*Plantago elongata*.

4. Leaves ovate, not tapering to stalk—*Plantago major*; Leaves lanceolate, tapering to stalk—*Plantago eriopoda*.

Plantago major or Common Plantain is the species found in waste areas, roadsides and gardens almost everywhere and becomes quite a weed in places. The Saline Plantain (*P. eriopoda*) generally has a mass of brownish hairs at the crown of

the root and is fairly plentiful around moist saline areas, creek banks and so on. Pursh's Plantain (*P. Purshii*) is a whitish, very silky-woolly species found plentifully on sandy and light soils, especially in the south-western part of the province. A very small, insignificant species, Linear-leaved Plantain (*P. elongata*) is occasionally to be found along muddy slough margins and is easily mistaken for Mouse-tail (*Myosurus*) at first sight. A very scarce species is the Bracted Plantain (*P. spinulosa*) which has been occasionally found in dry areas and has bracts below the flowers from a quarter to three-eighths of an inch long.

Economically the plantains are considered of negligible value, but birds are fond of the fruit and the spikes of Common Plantain are often fed to cage birds. The leaves of Common Plantain rubbed on mosquito bites seem to relieve the discomfort. Pursh's Plantain is grazed a little by sheep but the food value is limited, and it is reported that the young leaves of Common Plantain were used as food by the Indians of New Mexico.

Familiar Wild Flowers

By B. DE VRIES, Fort Qu'Appelle

No. 2 Western Red Lily

Lilium philadelphicum

L. var. *andinum* (Nutt.) Ker

The Western Red Lily, a variety of the Wood Lily (*L. philadelphicum* L.), is a typical of the Liliaceae (Lily Family), a family of Monocotyledons. Both the Western Red Lily and the Wood Lily are perennial herbs growing from white scaly bulbs to height of about 20 inches. The difference between the two species is in the leaves. The Western Red Lily has alternate lower leaves and the upper ones in whorls while the Wood Lily has all its leaves in whorls. Venation in both species is parallel-linear. Flowers are hermaphrodite and regular, with parts in threes. The perianth is petaloid, occupying the two outer whorls, and followed by two whorls of stamens with a superior ovary of three carpels; the ovary is three chambered with a number of axile placentas. The fruit is a capsule splitting along

the septa and containing many seeds. Because the Western Red Lily belongs to the Lily Family, with the parts in threes, we can write down



a floral formula for it as follows $P3+3, A3+3, C(3)^*$ The flowers are open in form with an upward slightly spreading perianth, red or orange in color with purplish dots in the center. These flowers are quite large and very showy.

The Liliaceae embraces several genera of which I will mention a few: *Allium textile* Nels. and Macbr.—Prairie Onion; *Disporum trachycarpum* S. Wats.—Fairy Bells; *Maianthemum canadense* Desf. var. *interius* Fern.—Two leaved Solomon's Seal; *Smilacina stellata* (L.) Desf.—Star-flowered Solomon's Seal; *Trillium cernuum* (L.)—Nodding Wake-robin; *Zygadenus elegans* Pursh—Smooth Camas. Most of these plants have the same botanical features as the Lily. There are a few exceptions, however, such as the genus *Disporum* where the fruit is a berry, and the leaves are broad and oval, or the genus *Maianthemum* with its flowers borne in a raceme.

The word lily is often loosely used in connection with plants which do

not belong to the genus *Lilium* nor even in the family Liliaceae. Thus the "Yellow Pond-lily" is *Nuphar variegatum* Engelm. (Nymphaeaceae); and the "Sand Lily" is *Mentzelia decapetala* (Pursh) Urban and Gilg. (Loasaceae).

Lilies favour a slightly moist soil, preferably with some sand in it, and so they are found in open woodlands across the province. Owing to the advance of settlement and ruthless picking lilies are rapidly disappearing, especially the Western Red Lily, which was chosen as Saskatchewan's floral emblem because many naturalists consider it one of our most beautiful wild flowers. Let us pledge ourselves, as citizens of a province abundant in wild flora and fauna, to preserve our wild lilies.

* It will be remembered from the previous article on the Crocus Anemone that symbols in the formula have the following significance: P (petals), A (stamens), C (carpels), and that - under a letter indicates that it is superior.

Nature's Schoolhouse

In each issue we offer a prize for the best original story on some nature observation. The story should contain less than 500 words. Place your name, age, address, grade and school on your story and send to The Editor of the Blue Jay, 2335 Athol Street, Regina. The winner has a choice of a *Peterson's Field Guide* (birds, or mammals or butterflies) OR a *Wherry's Flower Guide*. Entries for the next issue must be in by July 15, 1956.

This month the prize goes to Dale Brennan, Leross, Sask., for his story on "A Sharp-Tailed Grouse Dancing

Ground." He is 8 and in Grade 3.

Anne Matthews' story "A Day with the Deer" contains more than 500 words, so she is not eligible for a prize this time. (She has been a prizewinner before). We are printing her story because it is interesting and timely, and we know you'll enjoy it.

We would like students to write stories for their own section Nature's Schoolhouse but you will be interested in other parts of the **Blue Jay** too. We would like to hear from you; short items not suitable for your page might be included in Letters to the Editor.

A Day with the Deer

By ANNE MATTHEWS, Nipawin, Sask. — Age 16, Grade 10

This winter has been a most unforgettable one for me. The deer feeding program carried out by the Nipawin Branch of the Fish and Game League, the Department of Natural Resources, and the local sportsmen and farmers has enabled us to see sights that probably will never be seen again.

One of the most enjoyable trips I had this winter was on the eleventh

of March. We left town about eight o'clock. The morning was cool and clear. It was ideal picture-taking weather and pictures were what we were after.

Our destination was Azevedo's mill, seventy miles north-east of Nipawin. Driving up No. 35 highway, we continued on up the Flin Flon highway. As we drove, we noticed a great many lynx tracks in the snow. Near

the end of the highway we suddenly saw a moose in a gully beside the road. Cameras came out, but we were too late. The animal quickly disappeared from sight.

At the end of the highway we took to the bush. We were now on a narrow road, no room for passing. There were only a few turn-outs for meeting lumber trucks. Passing the first mill, we came upon a number of feeding stations with several deer at each. They were not the least bit afraid of the car, and only walked a short distance into the bush.

A few miles farther along we came out into a large opening with a few jackpines scattered about. From here we could see the Saskatchewan River, and downstream, the road across it. At the top of the river hill was a sign that read, "Stop, look, listen. One way traffic. Cross at your own risk." We stopped, shut off the car engine, but could hear no motor on the other side. The crossing was made safely and we got up the hill without having to back down.

In a slight clearing we sighted two moose standing in snow half-way up their bodies. We managed to get some pictures of them struggling through the deep snow.

Seven miles from the river cross-



—Photo by Anne

ing we came upon the Pas Lumber Company Warehouse. It is now deserted, but years ago this site was a small village. We saw deer quite often now. It was almost unbelievable that we had seen so many deer. As we neared Azevedo's Mill the feeding stations got closer together and there were up to a dozen deer at each.

When we got to the camp we found that Roy Lanz, president of our Fish and Game League branch, was already there. Roy was the organizer of the Nipawin feeding program.

We drove out on one of the skid roads to have dinner. Sitting quietly in the car, we saw deer everywhere. They were timid at first but soon overcame their fears and came closer. It was amusing to see how they kicked and pushed each other. We took several good coloured slides of these deer.

Don't think that these deer were not alert. At each click of the shutter, they would stop eating and stare straight at us. One buck, in particular, "Longneck" we named him, was continually watching us. Standing perfectly still, he would raise one front foot and stamp it hard on the ground. This was supposed to frighten us away. "Longneck" was always the first to raise his white flag and bound away and one of the last to return to the feed.

All too soon it was time to leave for home. The trip home was about the same. Deer were standing on the road at almost every turn. We saw no moose on the return trip but a lynx crossed the road ahead of the car. Because of his huge feet he trotted easily on top of the snow, sinking only a few inches. If only the deer had feet like those this winter! Back in settlement we saw a very dejected-looking Horned Lark huddled in the snow. This was our first migration record this spring. Reaching home was the end of a perfect and most memorable day.

A Sharp-Tailed Grouse Dancing Ground

By DALE BRENNAN, R.R. 1, Leross, Sask. — Age 8, Grade 3

Every morning when I go to school I see a place where Grouse dance. I can never get close enough to see all of them. When they dance they run up to each other and nod their heads and stamp their feet. They drag their

wings on the ground and stick their tails in the air and run along. They sound like a machine gun. Every day they had a guard and when he sees me he always gives a warning and they fly away. There are 9 altogether.

Museum Tours

Two letters from students who came from Birch Creek School, Bankend, to visit the Museum have been passed on to the Editor of the **Blue Jay**. Both Irene Borowski and Dianne Stefansson of the Grade VIII class describe enthusiastically their tour of the Museum. For the first time they saw the impressive display cases in the new Museum building and learned about the exhibits from Dr. Nero of the Museum staff. One of the display cases that Irene describes is the one showing the fur traders and Indians which is pictured in the Museum section on page 44.

Irene tells of another display by which the school group was especially awed. Dr. Nero said to us, "I have a surprise for you, and I think it will be more impressive if you close your eyes until we've rounded the corner and I tell you to open them." Then, by following Dr. Nero's

voice, we were able to round the corner without anything except a few bumps on the head for one boy who ran into the wall! But when we opened our eyes! Oh, what a sight! "It's enough to make your blood run cold," I whispered to my friend, for there stood the "Monarchs of the Prairies," the buffalo, and very imposing and majestic animals they were!"

In the opinion of Dianne Stefansson "the most remarkable exhibit was that of two wolves hunting under realistic, glorious moonlight, which seemed bluish and dazzling on a blanket of artificial, but seemingly real, snow." The enthusiasm of these two girls shows how much the Museum can do for the students in Saskatchewan schools, and we hope that these same students will get to know even more about the Museum section in the **Blue Jay**.

News from the Prince Albert Natural History Society

The Annual Meeting of the Prince Albert Natural History Society was held February 1, 1956, with the following officers elected: President - Ross Homer; Past-President - E. W. Brooman; Secretary - Grace Crooks; Treasurer - T. Capusten; Directors - D. Grief, I. Collins, M. Welsh, Jean McKenzie, R. Mayson, H. Towell, Winifred Woods, E. G. Evasiuk, F. A. Trent, J. Johnson, H. Tomlinson. Annual fees were set at \$1.00 for adults and 50c for children.

This season the P.A. Society has completed a series of five lectures on botany dealing with collecting, classifying, and mounting; and a series of two lectures on ornithology, in preparation for field trips. The lectures on birds included points of recognition and habitat, skinning and taxidermy, North American bird calls and a film strip of 32 common birds.

The P.A. Society is to be congratulated for the stand it took recently on the trapping of beaver on the Little Red River. City Council rescinded a resolution permitting beaver trapping at the Little Red and North Sask. Rivers within city limits because of letters of protest received from the Natural History Society and the Fish and Game League.

FLICKER PHOTO



—Photo by A. Capusten

Two young Yellow-shafted Flickers photographed by Tony Capusten, Prince Albert. These two Flickers from a nest in a dying poplar, were found in a weakened condition and fed buttered toast, raw wet oatmeal, hamburger, and earthworms. In a few days they were again quite active, thanks to Mr. Capusten's care.

Carp - Our Newest Fish

By F. MERVYN ATTON

Unwelcome visitors cannot always be turned away. Since 1952, several Saskatchewan waters have been invaded by the carp, *Cyprinus carpio*. This is an Asiatic fish, introduced first into Europe and then into the United States. Although not esteemed as a food fish on this continent as it is in some parts of Europe, it has become an important commercial species. Our concern with its presence in Saskatchewan comes from its competition with our native fishes.

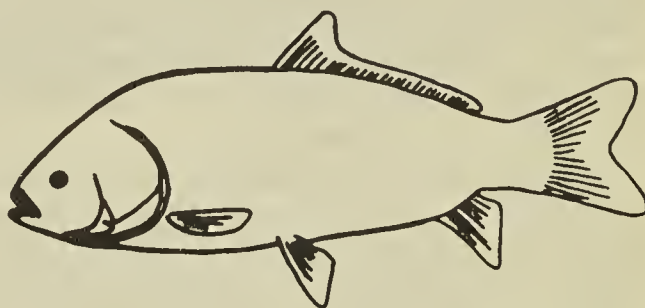
The mouth of the carp has two pairs of barbels—the second pair, at the corners of the mouth, being most conspicuous. It has no teeth. The body is laterally compressed, robust, and covered with large scales. The color is olive-green above, becoming lighter on the belly. The young are a muddy grey color. At Last Mountain Lake the bigmouth buffalofish (*Megastomatobus*) has been frequently confused with the carp. The line sketches of the carp (upper) and buffalofish (lower) indicate that the barbels are the important distinguishing feature. In the South Saskatchewan River, fishermen often report capturing carp, but up to the present these fish have always proved to be quillback suckers. The first spine in the dorsal fin of this sucker is much longer and smoother and the body is much more laterally compressed than that of the carp.

In Saskatchewan, carp have been found in the Qu'Appelle River and in the Assiniboine and Swan Rivers. Since they are well established in Lake Winnipeg, they may in the future ascend the Saskatchewan River. They are also in the southwest corner of the province in the Frenchman River, a tributary of the Missouri.

Like the English sparrow among birds and the Norwegian rat among



Carp



Buffalo Fish

mammals, the carp has proved to be a nuisance, largely because of its feeding habits. Rooting in the bottom ooze not only causes "muddy" water and destroys aquatic vegetation, it also destroys the spawning areas and hiding places of our other fish. The important foods of the carp are aquatic vegetation and insects, snails, crustaceans and mud.

Spawning takes place in June and July in shallow grassy areas of bays and where floodwaters provide suitable depth. The spawning act is sometimes called "rolling" because there is a great deal of splashing and commotion. The adhesive eggs fall to the bottom where they hatch in eight or more days, depending on the temperature. In our waters, young carp captured in October are four to six inches long.

If this fish becomes established in any body of water it will compete with other fishes for food, will destroy their habitat and produce the turbidity which prevents the re-establishment of aquatic plants. If the lake is shallow, wind action will erode the barren shores and prolong the turbidity thus preventing the re-establishment of the beneficial aquatic weeds. The productivity of the lake is generally lowered and desirable species of fish may disappear.

The Sovereign Butterflies of Saskatchewan

By DONALD HOOPER, Somme, Sask.

There are five species of butterflies of the genus *Limenitis* found in North America. There used to be seven species listed but two of these have been changed to subspecies. Two of the species are found commonly in Saskatchewan and a third might possibly be found in southwestern Saskatchewan. The Sovereign butterflies hibernate as partly grown larvae. In Saskatchewan, they have one or two broods, according to seasonal climatic conditions.

VICEROL OR MIMIC. *Limenitis archippus*. This is a bright orange butterfly. The margins of the wings have white spots, and the veins are black. The Viceroy closely resembles the Monarch Butterfly, but it is smaller with a wing expanse of about 2¾ inches and a black line crossing the hind wing. The Viceroy is often called the Mimic because of this resemblance to the Monarch. Birds do not eat Monarch Butterflies because they are distasteful to them, and it is believed that birds do not eat Viceroy either because they resemble Monarchs.

The Viceroy is found commonly throughout southern and central Saskatchewan. Probably it does not range far north in Saskatchewan as it is not found in the Northwest Territories. The caterpillars feed on

willows, poplars, aspens, plum, apple and cherry. The Viceroy is very fond of flowers. I took the accompanying photograph of one last summer on a fleabane blossom.

WHITE ADMIRAL OR BANDED PURPLE. *Limenitis arthemis rufofasciata*. This is a black butterfly with a white band across its wings. There is a row of red dots on the hind wing and a submarginal row of blue dashes on the fore and hind wings. The wing expanse is about three inches. The Banded Purple is commonly found in Saskatchewan and well into the Northwest Territories.

Banded Purples are very fond of flowers, cow parsnip being one of the favourites. The caterpillars feed on birch, willow, aspen, poplar and hawthorn.

WEIDEMEYER'S ADMIRAL. *Limenitis weidermeyerii*. As far as I know, this species has not yet been found in Saskatchewan, but it should be looked for in the southwest corner of the province, as it has been taken at Big Sandy, Montana, about 60 miles from the border. The species closely resembles the Banded Purple but the submarginal dashes on the wings are white instead of blue. The caterpillar feeds on cottonwood.



White Admiral or Banded Purple



Viceroy or Mimic

Where is the Kit Fox?

By R. D. SYMONS, Fort St. John, B.C.



—Sketch by R. D. Symons

Whether the Kit Fox still exists on the Canadian prairies is a matter for much interesting conjecture. Although it has not been reported for years, there is a possibility that the Kit Fox is not extinct. It is one of the shyest of creatures and even when it was relatively abundant, it was rarely if ever seen by day. In this respect it is like some of its desert fox relations, for example the desert fox of Arabia and Mesopotamia. My brother-in-law, Major Onslow, who spent many years from the mountains of Kurdistan to the delta of the Tigris, tells me that he only saw these animals on night manoeuvres. In the same way I remember that in the days before World War I, we often had these little foxes around our camps on the prairies, and would occasionally catch glimpses of one about the time we rolled out of our blankets in the sage-brush as the first faint grey of dawn showed in the eastern sky. But when we went to catch our horses and prepare for the day's work we knew the fox or foxes had paid us more than a brief visit. Saddle stirrups would be chewed to a pulp, corners of saddle blankets torn, and halters and wagon harness well tooth-marked or even reduced to a collection of iron buckles. I remember that a friend of mine had his boots chewed although he had put them half under his blankets. It seemed that anything sweaty (like a hat brim or the face of a horse collar) was particularly favoured by the little pests, who were no doubt in need of salt.

Why are the Kit Foxes seen no more? Have they been exterminated, and if so, how and why? They rarely seemed to bother poultry, they were too small to menace lambs or calves, and we know of no persistent enemy. Probably Golden Eagles picked up an occasional one. It is also possible that coyotes sometimes killed them, or farm dogs, but the Kit Fox would usually be much the fleeter animal. Ranchers, cowboys and farmers got the occasional lucky shot at them, but not many seemed to have been taken that way. Since their pelts were of no great value, Kit Foxes were only accidentally caught in traps.

One well known theory is that they were poisoned by sheep and cattle ranchers who put out bait for lobos and coyotes. But it is hard to believe that any animal of the Order Canidae, an order renowned for cunning and brains, would be so foolish as to commit complete racial suicide by persisting in taking poison bait. Our combined and devilishly clever use of modern poison methods can never be more than partially successful in eradicating wolves. And coyotes, I was told when last in Saskatchewan, have again appeared in areas thought to be 100% free of them. Here in the Peace River Country, poison has been used extensively by the Game Department of B.C. against lobos and coyotes, but there are still both these animals to be seen and heard. Individuals surviving from a pack or family that starts to feed on a poisoned carcass will thereafter avoid any food they have



not killed themselves. As I write, the snow is the deepest we have seen it here, and the winter has been the longest and most severe. A cow which died in January and was hauled into the bush is still untouched except by Ravens and Magpies, although every day I see the track of a coyote in the bush, and the other night I heard a timber wolf.

The Dingo is another animal which has survived all attempts to exterminate it. These Australian wild dogs have been hunted, shot and poisoned for over 150 years, but they still persist, and the Dingo hunters know that only a percentage can be poisoned. If, then, the Kit Fox of Saskatchewan was completely annihilated by poison not set for him, he was certainly no credit to the canny dog tribe.

What records there are for our prairie Kit Fox in Montana and the Dakotas in recent years I do not know; I believe that there, too, they are supposed to be non-existent. But one should draw no hasty conclusion from the fact that no one seems to have seen a Kit Fox in the last thirty years. The southern range land covers an immense, sparsely

settled area, and within that area are many half-breeds and Indians who might well have seen, and even killed, a Kit Fox without reporting it. And one argument still remains in favour of the Kit Fox's still inhabiting the broken table land and grey sage flats westward from Wood Mountain. Since these animals were mostly seen at night and their presence known by the condition of the saddles and bridles in the morning, they were only evident to people active at night and in the early morning. In the early days, round-up wagons were on the move from spring to fall. Riders got up in the morning when it was hardly light. Some took turns at "night guard," and others came off their circles long after the sun had set. These men of the range were observant men. No city man, driving to his office at nine, no farmer clanking to the barn with his milk pails, could see or care about one-tenth of what the horsemen of the plains saw. And only they left equipment upon which the Kit Fox could leave his mark.

With the fencing of the range, the old life largely disappeared. The cowboy of today usually sleeps and eats under a roof, and cattle are

penned for the night in corrals. Only the sheep herders live much as they used to, but there is now only one where fifty years ago there were perhaps a hundred. However, in any attempt to find out if these foxes still persist in some remote corner, every cowboy, sheep-herder, and Indian should be asked for information. No Kit Foxes having been seen or shot for years alarms me, but does not prove that they no longer exist.

Editor's Note: A letter from Mr. S. A. Mann of Skull Creek tells how years ago kit foxes were very numerous and easy to trap

or poison. He says that they were trusting animals and came in around the farm buildings. He has not seen one since about 1905.

Mr. Don Kirk, P.F.R.A., Regina, is not so sure that the kit fox is extinct in Saskatchewan. He thinks he saw one last summer on the south watershed of the Cypress Hills near Cypress Lake. He wrote several letters to old timers in the area but they were guarded in their comments. Mr. T. E. Fordice says, "We have not seen any kit fox although they used to be here and it is rumoured that there are some near." Mr. H. I. Wallace says, "I believe one was seen near Battle Creek in 1954."

The last authentic report we have of a kit fox seen in Saskatchewan comes from the Museum's files. This was a kit fox trapped in 1927 near Ravenscrag and donated to the Museum where it has been mounted and preserved.

The Ups and Downs of Game at Crescent Lake

By K. E. BAINES

The following observations are based on information taken from my grandfather's diary commenced in August 1883 and later from my father's diary commencing in 1917—both of which are in my possession. Besides these, I have personal memories dating from about 1910 from my contacts with both the above men. The area concerned is in the immediate vicinity of Crescent Lake which is my birthplace and still very dear to me, even though I left it some twenty years ago. Crescent Lake is 16 miles south of Yorkton.

Crescent Lake is a shallow body of water which in dry cycles dries up to nothing but a meadow of grass and weeds. In 1883 it was full of water. It was completely dry about 1897 and again in 1938. It was full to overflowing in 1919 and is again high in 1956. The amount of water in the lake, of course, reflects the wet and dry cycles of the district and has a definite bearing on many species of game.

I will deal with game animals first. In 1883 the prairie was covered with buffalo bones, the last of these large animals having been disposed of only a few years before. Almost as conspicuous as the buffalo bones were the large antlers of elk, and I can still remember seeing lots of these in some of my hikes to the less-frequented spots. Elk must have been very numerous some years previous and they seem to have disappeared about the same time as the buffalo. They were probably

just an extension of the great foothill herds and for some unknown reason they retired to that area and to a few isolated spots such as the Moose Mountains and Beaver Hills, and have never been away from these places since to any extent. Man was surely not a factor here; otherwise, elk could never have made a comeback—even with protection.

Mule Deer or Blacktails, as they were locally known, were fairly common in 1883. They were the only deer. They became very scarce and the season was closed about 1910. About this time Whitetail, or Virginia Deer, appeared in quantity and at practically the same time the Mule Deer became scarcer, disappearing altogether about 1928. The Whitetail became more common until there was insufficient pasture and many died during several springs in the 1920's and even later. Again the Mule Deer came from the west and has withdrawn in that direction, while the Whitetail came from the east and appears to be pushing farther west.

Rabbits and Jackrabbits have had their usual ups and downs, but I am beginning to wonder just what is happening here, as they have not been numerous for ten or fifteen years now. Could the use of 2-4-D be having an adverse effect on the rabbit population?

Foxes were numerous in 1883, but coyotes did not appear for some years. When they did appear, the fox nearly disappeared and has

never staged a comeback. Only rarely is a fox seen now. Coyotes have been common for fifty years. As for other animals, the advent of the white man does not seem to have had any particular effect.

Jackfish were available in Crescent Lake in 1883 and have reappeared during periods of high water such as 1955.

Game birds are a much larger subject. Sharp-tailed Grouse were mentioned by my grandfather in 1883 and they have practically held their own until very recently. Concentrated agriculture and much pasturing will probably eventually force this bird into the uninhabitable areas of Saskatchewan. The Pinnated Grouse appeared about 1900 and became just as plentiful as the Sharptail from 1910 to 1920, when it gradually thinned out and disappeared. These were fine birds and just why they came and went has never been explained. They were fairly common as far north as the Arborfield district in 1920. They were more wary than Sharptails so gun pressure can hardly be blamed. Conditions were no different when they came than when they disappeared. They were apparently an extension from Minnesota and Wisconsin, and they have probably withdrawn to those states. Why?

The Mallard Duck has shown itself well able to look after itself with the help of good game management. Some other varieties of ducks may not be doing so well. I can remember seeing large flocks numbering hundreds of Gadwalls, and even Pintails, both of which could be classed as uncommon now. Teal and Shovellers are also less common.

The Canada Goose still nests in and around Crescent Lake as it has done for the past 70 years. The flocks that used to collect in late August and camp in certain favored locations around the lake for the night, are no more. This wily bird has learned that to survive he must bypass certain spots, and this is one of them.

The White-fronted Goose, the Wavey or Snow Goose, and various small subspecies of the Canada were common in large flocks in the early 1900's, but by 1930 these too had commenced using other migration routes and they are rarely seen now.

The Whooping Crane always appeared in spring and occasionally one was shot, but very few have been seen since 1900. The Sandhill Crane used to nest in the area but this bird has also become uncommon and only passing flocks appear now.

No discussion on game birds would be complete without some mention of Crows and Magpies. Crows were very scarce in 1883 but gradually increased until about 1915 when they levelled off at about the same number. Magpies were nonexistent until 1920 or later and were scarce until a few years ago. Now they are almost as numerous as Crows. Possibly this severe winter will thin them out some. Both these birds do eat large numbers of game birds' eggs and young and I am not defending them. Nevertheless, it seems difficult to account for any particular change in game bird population that will coincide with a similar change in numbers of these predators. My opinion, for what it is worth, is that game birds survive in relation to their habits of hiding their nests. Those which seek good cover continue to increase, and those which do not are gradually eliminated.

This same theory can be used when discussing gun pressure. The most sought-after game birds are Canada Geese and Mallard Ducks. Forty years ago Canada Geese came out to feed on grain fields in late August or early September. They always came to the same field and to the same spot until shot or disturbed in some other way. They fed regularly night and morning. Now they have changed their habits completely. They may or may not come to the same field; they feed at any time of day. Those which continued in the old habits have probably been shot while the ones capable of adapting themselves have become more numerous and consequently lead the flocks. Mallard Ducks are commencing more and more to feed on grass fields after dark, probably because ducks cannot be shot after dark.

It seems probable to me, therefore, that our game birds will find ways to survive in spite of increasing gun pressure and changes due to greater human populations in their old haunts.

Sportsmen's Panel - CKDM Dauphin



—*Krass Studio*

SPORTSMEN'S PANEL: March 11, 1956. Left to right: Stan Martinson, (Rod and Gun Club, Ortonville, Minn., guest), Dr. O. McGuirk (Veterinarian, Dominion Government, guest), W. T. Forbes, J. Ludgate (Moderator), Art Mansoff ("The Old Poacher"), Dr. C. C. Wright, (Medical Health Director, Manitoba, guest), Sid Glinnon.

Every Sunday afternoon at 2:30 p.m. Radio Station CKDM in Dauphin, Manitoba, broadcasts as a public service feature a half-hour programme called **Sportsmen's Panel**. Broadcast time is used to discuss important problems in wildlife conservation. In addition, the panel selects each week the most interesting letter submitted to it and awards a year's subscription of the **Blue Jay** to the writer. Prize-winning letters have described dogs turning deer killers, the habits and nesting of Canada and Blue Jays, feeding of upland birds around grain elevators, muskrat farming and the planting of wild rice for ducks, etc. We are pleased to have the **Blue Jay** going into the homes of these Manitoba people who are interested in wildlife.

BLUE JAY WANTED

We need a back copy of the **Blue Jay**, Volume X, Number 3, July, August, September, 1952 to complete a file of the **Blue Jay**. If you know of an extra copy of this issue, which is not needed, please send it to 2335 Athol St., Regina. If new members would like back copies we have all the 1954 and 1955 copies available and will sell the 8 as a set for \$1.00.

A REVIEW by R. W. Nero, Ph.D.

A Flint Site in Northernmost Manitoba

By J. L. GIDDINGS, Jr., *American Antiquity*, 21:255-268:1956

A small collection of flint artifacts evidently relating to material found at early Alaskan and Greenland sites was recently found near the North Knife River west of Churchill, Man. The site was first located in 1952 by a Chipewyan Indian named Thomas Jawbone, who brought 13 flint artifacts to J. H. Smith of Churchill. In 1953 the author visited the site with Jawbone and another man and obtained an additional four dozen flints. These 55 or so pieces plus "thousands of raw flakes and cores" examined in the field and laboratory form the basis for the paper. Detailed descriptions and excellent illustrations of the flints add much to the value of this contribution from a practically unknown area of the country. The article includes observations of archaeological interest made in the Northwest Territories but it is primarily concerned with the material from the North Knife River. This report has particular significance in regard to Saskatchewan archaeology since the Knife River connects with one of the main waterways between Hudson Bay and this province. It seems likely that similar material will be found along the course of the Churchill River.

Dr. Giddings is well-known for his studies on the archaeology of the far north. He has a personal acquaintance with several of the sites he discusses and especially with the unusual implements which characterize the Knife River Site and which have also been found at various Arctic sites. Generally, the artifacts from these early sites tend to be small in size and rather finely worked. The most prominent kind of artifact at the Manitoba site is the "burin". This term comes from Old World archaeology and has been applied to similar tools only recently reported in North America. (Burins are variously-shaped flints with a stout angular point on one end obtained by striking a vertical blow at the point of a blade or flake, thus releasing a narrow flake down the length of the implement. The resultant flake-scar is called the

"burin facet." The chisel-like acute angle formed at the tip or corner is the burin point or working edge. Burins frequently show signs of removal of successive flakes as if for resharpening. Presumably, burins were used as gouging or shaping implements. Burins have also been called "gravers," but in North America this term has been mainly applied to a flake or blade bearing a point produced by unifacial pressure flaking on both sides of the point, the underside remaining untouched.)

The 13 pieces found by Jawbone included burins and "side-blades" ("knives" with one edge more finely retouched, as if for side insertion rather than base insertion) and this fact encouraged the author to visit the site. The area in which the artifacts were found was called in Chipewyan *Thyazzi* (sandy), and according to Jawbone was a traditional place for intercepting migrating caribou herds. The site lies about 20 miles up from the mouth of the North Knife River and about one mile away from its banks. The total count for the site includes 17 burins, 13 burin spalls (the flakes removed in preparation of a burin); 8 bifaced side-blades, and a few generalized end-blades and scrapers. "Microblades" (very small, minutely-flaked blades found at several Arctic sites) were absent, as was material representing later cultures, e.g., polished slate, potsherds, and lamp or stone dish fragments. On the basis of the presence or absence of the above items, the author compares the Knife River site with sites in Greenland, the Canadian Arctic, Alaska and Asia, all these sites seeming to be among the earlier ones found in the Arctic region. Giddings tentatively classifies the Arctic sites according to the emphasis on these distinctive tools. The North Knife River site is considered to be a "burin, side-blade site", matching a site at Sarqaq in Greenland.

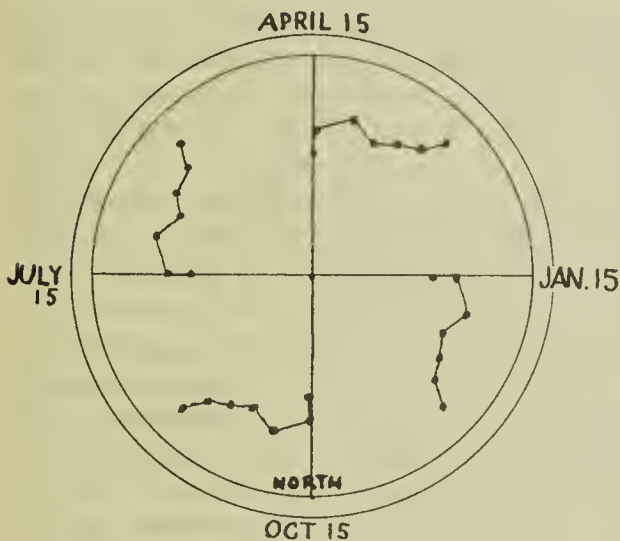
It should be pointed out that Giddings' report is based mainly on surface material found in a number
(Continued on Inside Back Cover)

Astronomy - For the Amateurs

By JOHN HODGES

Everyone has observed that the heavens slowly change but that for any one season the constellations are the same. Orion is always in our winter skies, for example. A closer watch of the area near your eastern horizon will reveal that a reference star chosen at random will be farther up from the horizon at the same time each succeeding evening. As a matter of fact, the same stars rise approximately four minutes earlier each evening. From this it will easily be understood that during any year all the stars visible at Regina will, at some time during the year, be in our night sky and each star will have its turn at being on our meridian, an imaginary north-south line through our point of observation.

To learn constellations relative to the annual motion, refer to the diagram. Note that the big dipper (the



Positions Ursa Major at 9 p.m. M.S.T.
During Year.

plow, or Ursa Major) is shown at 9 p.m. in its various positions during a year. It will be vertically overhead on April 15th. Six months later it will be at its closest to the northern horizon. This constellation never sets because its radial distance from Polaris is less than Polaris's distance above the horizon. Should the reverse be true, the star or constellation will rise and set.

You will find the following constellations on your Meridian at 10 p.m., M.D.T., this summer: June, Hercules, Draco and Ursa Minor; July, Aquila and Lyra; August, Cygnus.

This spring Venus had the sky to herself. The planet was the most brilliant object in our sky for some weeks—and she reached her maximum brilliance May 16th. She was then only 26,000,000 miles away from us. Her year is 224.7 days long—her day, 30 days duration. Our earth has a diameter of 7926.7 miles, Venus' diameter is 7200 miles, and she weighs .82 the mass of the earth.

This summer another object takes over for interest. Mars comes closest to the earth September 6th and will be 50,000,000 miles from us. The polar ice caps will be visible in a telescope and the planet will be easily seen and identified by its reddish color. It is 4,140 miles in diameter, but it is 1.52 our distance from the sun. The result is that her year is 1.9 times ours. The day is very similar to ours, being 24.5 hours long. An object of 100 pounds weight on the earth would weigh 36 pounds on the surface of Mars.

A free show well worth watching is the Perseid Meteor shower. It begins in late July, and reaches a climax on August 11, when about 50 meteors an hour will be seen, particularly after midnight. These particles, the size of a grain of wheat or smaller, are believed to be the remnants of comets which have at some time earlier crossed our path. The earth's gravity picks up this material, day and night. The particles become visible at approximately 60 miles above the earth's surface and continue (if of sufficient size) to about 40 miles above us. Friction with our atmosphere causes them to burst into a brilliant, short-lived streak of light. Observations made of meteors are of value in telling the scientists what is happening to the clouds of material which give rise to meteor showers and afford a study of our atmosphere at great altitudes. In any readers cares to know how to make such records, please write to the Director, Regina Astronomical Society, 1554 Elphinstone Street, Regina.

So when you are on picnics, camping or fishing trips, or wiener roasts this summer, remember: when the sun sets, the heavens are there to study—and it's all fun.

Spade and Screen

By FRED ROBINSON, Regina



The above drawings were made in 1937 by Mr. Kenneth Jones, Mortlach, Saskatchewan. They are three of his early finds of stone age specimens, one of them an excellent Folsom Point.

KENNETH H. JONES OF MORTLACH

Our series of tributes to men who pioneered in archaeology can hardly begin without a story on one of Saskatchewan's earliest collectors, Kenneth (Casey) Jones. In his youth in England he had become familiar with Stone Age relics in the British Museum and his interest was re-kindled by finding similar material as early as 1919 after the sandy land adjacent to Mortlach began to drift. From then on archaeology became his real interest in life. By diligent hunting he amassed one of the most unique collections of artifacts in Western Canada.

In 1919 no archaeologist of standing would entertain the idea of any earlier occupation of North America than two to three thousand years. But Kenneth had found projectile points quite different from the standard Indian Arrowheads. He found those now classed as Yumas and a special type known as Folsom. The significance of these latter had to await developments farther south. It was in the 1920's that the new style points were found at Folsom, New Mexico, associated with Mammoth bones. It had not been considered that the Mammoth had survived long

enough, or that man had been here early enough to be contemporaries. Ken's finds of several Folsom points fitted into the picture to show that Sask. was in the stream of early man's migrations in North America and Mortlach was definitely on the map archaeologically speaking, where it has stayed ever since.

Any collector who has experienced the thrill of finding a choice specimen will realize that Kenneth's collection represented the finest succession of golden moments that a man could live for. He found thousands of beautiful flint relics before there were other similar collectors to give competition.

Kenneth Jones has another hobby which many think is his greatest skill—that of painting and sketching. Several of his paintings are now in our Provincial Museum in Regina. His home is full of paintings done over the years of a wide variety of subjects. Many of his Christmas or Greeting Cards, mailed to his many friends, are made by a quick water color or pen ink sketch and folded for mailing. Two of these are shown above. It is hoped that some day Casey Jones will take time to write a book about his Mortlach finds with every other page a "hand done" illustration.

AMATEUR ARCHAEOLOGISTS

The following letter was received from Mr. A. J. Hudson and we are pleased to publish it in its entirety. He comments on the amateur-professional relationship discussed in the *Blue Jay*, Volume XIII, Number 1, March, 1955.

The Editor, Spade and Screen.

Something was said earlier about amateur archaeologists and I'd like to add to it. Let's point out first that a related science, geology, is founded on the work of amateurs. The same is true of Saskatchewan archaeology. It wasn't very many years ago that it was believed elsewhere in North America that there was no permanent occupation in this province much over 300 years and even that there was no pottery here, but it was the interested amateurs who uncovered the evidence upsetting those beliefs.

It's also true that amateurs have wrecked sites by unsystematic digging. When the trained archaeologist excavates, he, of course, systematically destroys a section of the site but the purpose is to extract every scrap of knowledge that the excavation can yield. He is after knowledge rather than a collection, knowledge through his collecting. He is actually reconstructing history, of a very limited order, there being only tools and debris and no written word. All too often the amateur, by his unsystematic work, is limiting himself to just a small fraction of the knowledge that could have been gained. It all depends on the viewpoint. If the amateur is after a collection rather than knowledge, a collection is all he'll get and he'll destroy the site to no very good purpose.

On the other hand, when the professional lays down rigid procedures for excavating, he's dealing with a site already found and proved, which brings up the interesting question—how do you know where to dig? How do you find a site and prove that it is worth excavating systematically? That is where experienced amateurs are just as good as professional archaeologists and can do very useful work. There are millions of acres to hunt over and thousands of likely places suitable for occupation and they take a lot of hunting.

To put it baldly, our archaeological work involves destruction of sites. Our first finds were the result of destruction by wind. Some sites are

found because of partial destruction by machinery. Our Besant site was found as a result of destruction by stream action as the present creek was eroding into one of the fire-hearths and exposing bones on the bank. It's also true of proving a site that it is necessary to destroy a small section to find out what you've got, the more systematically it's done, the more valuable is the information obtained.

There's not only a useful place for the amateur in our archaeology but there would be considerable benefit from an organization and more inter-communication. We had a society when Mr. Orchard was alive but I think it was on too wide a basis, at least it didn't long survive his death. It would probably be better to begin with local groups of enthusiasts supporting local museums and later coming together every two years at the central Museum in Regina.

One item of my experience may be of interest. The common illustrations of Indians on horseback killing bison—the running kill—is somewhat misleading in a way. The Blackfeet, for instance, only got horses about 1730 and the Indians were around for about three thousand years living and working on foot. One of his favourite earlier methods of killing was the drop kill or fall, *not* over a high cliff but over a shallow bank. Whether he used a pound with the drop is hard to say. I can count up to eleven drop kills that I have known and visited, both in ravines and stream banks, and the drop was from 15 to 30 feet or so. As between two ravines alongside one another, the shallow one was preferred.

I discovered a new fire-hearth area in Besant, a year ago last fall and explored it last summer. While it didn't turn out to be what I hoped for, I did get a new style of point in the bottom layer different from any found previously in the sites. Actually the bottom layers fill in a gap that exists in the other fire-hearths.

Yours truly,
Allan J. Hudson,
Box 253, Mortlach.

The Blue Jay Bookshelf

WILD AMERICA

By ROGER TORY PETERSON and JAMES FISHER.

Boston, Houghton, Mifflin Company, 1955. \$5.50.

Reviewed by FRANK BRAZIER, Regina

Last year in the *Blue Jay* (Vol. XIII, No. 3) I was accorded the privilege of presenting my views in respect to "Sea Birds," and mentioned that it could well be added to the library of any student of the natural sciences. To that list I have no hesitation in adding "Wild America" by Roger Tory Peterson and James Fisher. It might be observed that a book written jointly by two eminent ornithologists is obviously a book for birders—but not so, because these authors are scientists first and ornithologists second. The whole book illustrates this—we sense immediately that no matter what aspect of life is being observed or described, be it bird, beetle, butterfly, plant, mammal or man, it is being viewed against the backdrop of Time and in relation to the rest of the pageant of life.

The 30,000-mile trip is engagingly written up: Peterson, the American, handles the introduction in each chapter, while Fisher, the Englishman, completes it—a most effective and refreshing method. The 434 pages become a highly instructive and entertaining guide book to that part of North America covered. The wide-ranging minds of these two observers fish in many waters and we are all the richer for it. Did you know that North America has 80 species of violets? that in 1953 there was one bird book published a week in England? that Spanish moss, *Tillandsia*, was named by Linnaeus after a Swedish student, Tilland, who became so seasick on the water that he once chose to walk 1000 miles rather than take a boat, Linnaeus being under the mistaken impression that the plant likewise abhorred water? The book is crammed with such items, together with much authentic history and pertinent comment. It goes without saying that there is much on the birds observed, but the other forms of life encountered get careful scrutiny.

We can learn much from this book—the value of informal con-

versations among students of the sciences, the great store set on parks by the city of Washington, the best places for birds (Rockport, Texas, the Santa Ana tract and the Laguna Atascosa Refuge on the Rio Grande in Texas, and Xilitla in Mexico), some warnings to city planners, and the origin of the North American life-zone concept, etc.

The Cattle Egret story is given in detail, and so are those of the Ivory-billed Woodpecker and the California Condor. In Britain we learn that Fisher considered bringing in Swedish osprey eggs in an effort to re-establish the osprey. (These comments of Fisher are curiously similar to the suggestion of Richard H. Pough regarding the Black-necked Stilt (Audubon Bird Guides): "Since hunting rather than habitat destruction was the cause of their disappearance, stilts, even more readily than avocets, could probably be re-established as breeders by egg transfers to nests of other shore birds like willets." Egg transfer is a field in which Saskatchewan birders could well carry out valuable experimental work.)

The authors give the rare kites quite a bit of attention, and were fortunate to see the Swallow-tailed Kite on two or three occasions. This bird is on the hypothetical list for Saskatchewan and will remain so until some one kills one and turns it into a scientific specimen. I heard last year that one was seen in Regina and one was seen in Prince Albert, but neither observations were confirmed, although personally I have the greatest confidence in the observers.

The author's account of the slaughter of eagles and vultures in Texas opens our eyes to a shameful page in the story of Wild America. A similar picture of this wholesale and needless destruction is presented in **Karankaway County** by R. Bedichek.

We would like to congratulate the editor of **Saskatchewan History**, Dr. Lewis Thomas, on the publication of his book "The Struggle for Responsible Government in the North West Territories 1870-1897". (University of Toronto Press, \$5)

A FLINT SITE IN N. MANITOBA (continued)

of sand blow-outs. The apparent similarity of stone-working technique plus the limited number of artifact types were interpreted by the author as indicating a single culture and a single period. As Giddings said, a great deal more digging and analytical work will have to be done to test the cultural relationships he has proposed. Nevertheless, it is apparent that examination of surface material from similar sites across the continent will help to trace both the time and paths of diffusion of persistent cultural traits. Surface material has played an important role in archaeological progress in the past and will continue to do so for several reasons. Many sites consist of surface material only, owing to erosion of soil by wind and water. In "pure" sites, i.e., sites of single people at a single time, all the material is related and little is lost by its reduction to a surface position. At mixed sites, where 2 or more cultures have become mixed by loss of stratigraphy, separation is often still possible on the basis of typological information obtained at other stratified sites. Distributional information based on point types, etc., accrues from surface material regardless of the nature of the site and distributional data is one of the important goals of archaeology. (Where and when did these people come and go? With what environmental features

can we associate the distribution of a particular culture?) To a large extent, owing mainly to the amount of land surface disturbed by man and nature, our knowledge of the distribution of prehistoric peoples will have to be based on surface material. In agricultural areas much of this information is being rapidly lost due to destruction of fragile material, particularly pottery. Pottery, because of its original plasticity, is our most cogent link with the near past. Unfortunately, it is subject to deterioration upon exposure to the elements and upon continual transport by farm machinery.

Remnants of former cultures are a part of our heritage and may well be considered a natural resource, though intellectual rather than physical. Conservation of this resource is an increasingly important need. Actual protection and preservation of sub-soil for study by future workers is an obvious need; the accumulation and safekeeping of surface material for future study may be less so. Collection of surface material (numbered and catalogued for future reference) from sand blow-outs or from cultivated lands, is an important conservation activity. It is in this respect that the non-professional archaeologist can make the greatest contribution to the knowledge of early people in the province and in North America.

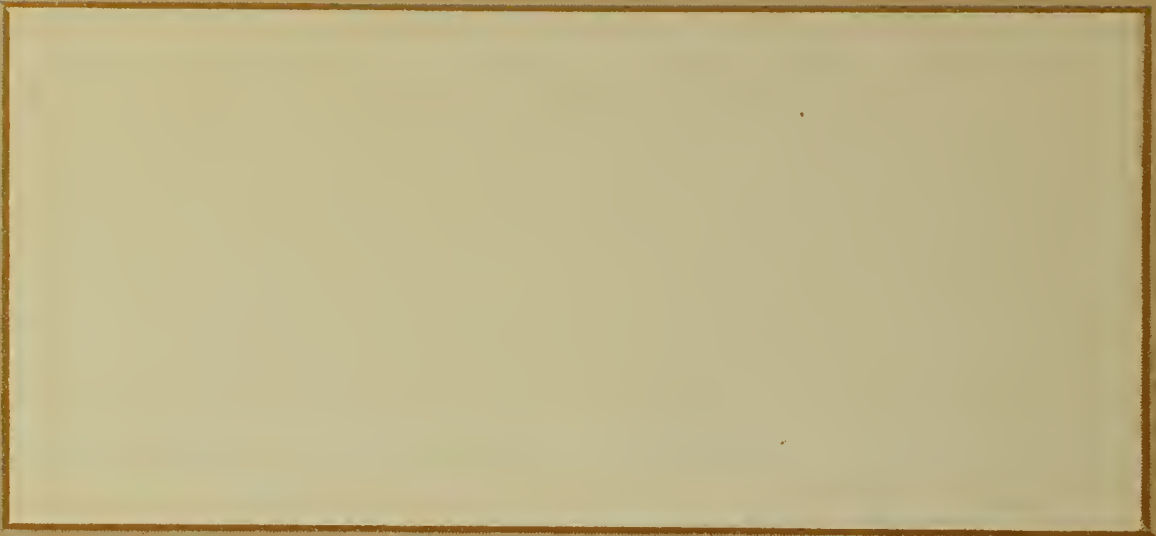
TREASURER'S REPORT by E. L. Fox

As of May 1, we have taken in \$1560.00, a sum considerably below what it costs to publish the **Blue Jay** for the year. To make up the remainder, we must have new members or renewals for 1956. We have tried several ways to get new members and renewals, but the personal approach seems to be the best. There are still over 400 people who were members last year who have not sent in their dollar. Sorry, but we cannot send them the **Blue Jay** until they do. If you know one of them, or if your neighbor is interested get his dollar and send it in for him. There are extra copies of the first issue and we would be pleased to send them out. So let's get down to business and each one of us get a new member and maintain the present size and standard of the **Blue Jay**. See you all at the summer meeting.

ANNUAL MEETING at Saskatchewan Museum of Natural History, Regina, October 27, 1956

Dr. Douglas Leechman, Director of Western Canadiana has tentatively accepted to be our guest speaker. He will speak on the migration of man from Siberia into North America. Dr. Leechman has devoted most of his time during the past ten years to this subject. It is of particular interest to us because the western prairies were on the earliest route of migration.

Plan to attend our annual meeting. If you wish to present a paper or bring up any question, write to our president, Mr. W. Yanchinski, Naicam.



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—Photo by F. Lahrman

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