

Seventh Annual Report of the Alberta History Society.

Hon. Duncan Marshall, *Minister of Agriculture*.

Sir,—I have the honour to submit herewith the seventh annual report of the Alberta Natural History Society for the year 1912.

The annual meeting of the society was held in the council chamber, Red Deer, on Friday, November 29th, 1912.

The president, Dr. H. George, Red Deer, in the chair.

President's Address.

The president gave a brief address welcoming the members to the meeting and reviewing the incidents of the past year. While the progress of the society had not been up to expectations during 1911, he was glad to say that steady progress had been made during 1912, and prospects were very encouraging. There was not much in the way of observation notes that was new. He would draw attention to the persistent efforts of Mr. Brown in his search of prehistoric remains in the Trochu Valley;

His efforts have been marked with deserved success, though we as a society would decidedly object to these valuable relics leaving the country and being deposited in the Museum of New York. The last find made by Mr. Brown was a complete specimen of an animal hitherto unknown to science and its estimated value is \$70,000. Prairie chicken have become plentiful, no doubt owing to protection by the government, so plentiful indeed that in some places crops have been damaged by them, causing the farmers a loss. Capt. Cottingham reports that he has shot a very rare specimen, an albino teal. Albinos have been obtained in the other classes, but this is the first albino teal so far secured. The captain has the specimen mounted and placed among his valuable collection of trophies.

REPORT OF THE SECRETARY-TREASURER.

In connection with the work of the society it was decided that prizes should be offered at the agricultural shows this year at Red Deer, Innisfail and Erskine as follows:

1st and 2nd for Collection of Alberta Wild Flowers.

1st and 2nd for Collection of Alberta Insects.

1st and 2nd for Composition on "Bird Life in Alberta During the Summer Months."

Flowers.—to be mounted on cardboard 12x15 inches, showing the plant with—when possible—root, flower and seed; flowers to be named, with name of place and date of gathering.

Insects—including butterflies, moths, beetles, etc. ; to be pinned in cardboard boxes and named as far as possible.

Composition on Bird Life—noting time of arrival, characteristics of birds, nests and eggs—to be written on one side of the paper only. These competitions are open to school children in the different districts, each exhibit' to be the bona-fide work of the exhibitor, and to bear the name and age of exhibitor. Due allowance will be made for age.

The prizes are as follows:

First Prizes :	Value
Alpine Flora of Canadian Rockies	\$2.75
Entomology	3.00
Bird Guide	1.75
Second Prizes:	

Freckles	2.00
Reed's Flower Guide	2.00
Reed's Bird Guide	2.00

RECEIPTS.

To Balance on hand	\$138 . 44
Grant to Society, April, 1912'	100.00
L. B, Potter, fee	.50
J. S. Short, fee	<u>.50</u>
	\$239.44

Expenditures.

By G. R. Westland, printing	\$ 6.25
L. C. Harry, typing	2.60
Postage	1.25
Stationary and sundries	3.05
Mrs. Hughes, Erskine, expenses to meetings	10.00
Mr. R. E. Fiske, expenses to meetings	4.50
Mrs. Keast, expenses to annual meeting	2.00
Rev. J. S. Short, expenses to annual meeting	3.50
Mrs. G. H. Good, expense of banquet	27.15
Mrs. George, sundries	1.70
L. C. Harry, typing correspondence and annual report.	2.50
Red Deer Advocate, printing	4.65
Red Deer News, dodgers	2.15
Grant to Red Deer branch	10.00
Grant to Erskine branch	10.00
Balance on hand	<u>148.24</u>
	\$239.44

Audited and found correct,  
Fredrick. M. Rogers,

*Auditor.* Report of The Red Deer Branch To the President, I beg to submit the following report of the Red Deer branch for the past year just about to close. It has not been a very strenuous year with the Red Deer branch owing to various causes which need not be gone into just now. Still the year has not been altogether barren as will be seen by the list of interesting lectures reported below. And at the end of the year there is a promise of greater interest and activity in natural history work than was seen a year ago.

No annual meeting of the branch was held in 1911 and the old executive remained in office during 1912 until August, when Mrs Wanless the Hon. Secretary-Treasurer, left Red Deer and was succeeded by Mr. H. G. Munro for the remainder of the term.

The following lectures were given in the Red Deer public school:

Jan. 23. On Radium:—by Principal McKenzie, B.A.

Feb. 6. Mountain Climbing:—by Prof. J. E. Bouce, of the Alpine Club of Canada.

March 12. Game Preservation :—by Capt. W. H. Cottingham, Dominion Land Agent, Red Deer.

May 7. Natural history notes from the District of East End, Sask.

A paper communicated by L. B. Potter, Esq., of East End.

July. Some notes on the Natural History of a Winter Tramp up Sulphur Mountain, Banf:— Paper coommunicated by N. A. Sanson, Esq., Curator National Park, Banff.

Field Day. On June 1st the society had their first, and unfortunately the only field day that it was possible to hold during the summer. The gathering was much enlivened by representatives from the Innisfail Branch, and a very enjoyable afternoon was spent and some 64 botanical specimens collected.

At the annual meeting held on October 29th the following officers were elected:

President.—Dr. H. George.

Vice-President.—Mr. S. Pamely.

Secretary-Treasurer.—Mr. E. Wilton.

Executive Committee.—Mesdames George, Green, Cottingham. Pamily and Tallman, (together with the officers.)

INVENTORY.

1 Exhibition Show Case.

Specimens:—Animals, birds, birds' eggs and nests, minerals and pressed plants.

Books:—Farm Weeds, Catalogue of Canadian Plants, several volumes. Catalogue of Canadian Birds, Bird Lore, 1 volume. Old Eed Sandstone, (Miller.) Newspaper cuttings (Portfolio.)

LIST OF MEMBERS.

Alford, B. P. Lord, W. E Bouce, J. F. Lord, Mrs. W. E.

Carswell, J. A. Michener, E., M.P.P.

Cassels, Mrs. W. A. Moore, Rev. C. W. G.

Cole, Miss Munro, H. G.

Galbraith, F. W Pamily, S.

Galbraith, Mrs. F. W. Pamily, Mrs.

George, Dr. H. Summerby, Miss F.

George, Mrs. Tallman, Mrs. F. H.

George, Miss. Wanless, Mrs.

Cottingham, Mrs. Wilton, E.

RECEIPTS AXI) DISBURSEMENTS.

1911.

Jan. 1 To balance at bank \$35.75

Nov. 1 By postage \$ .75

1912.

March 15 By printing re Prof. Boyce's lecture. 3.50

March 15 By distributing bills re Prof. Boyce's lecture. 1.00

April By postage .50

April 15 To grant from provincial society 10.00

May 6 By postage .25

June 10 By postage .20

June 10 To subscriptions :

Alford, B. P .50

George, Dr .50

George, Mrs .50

Pamily, S .50

Pamily, Mrs .50

Summerby, Miss F .50

Wanless, Mrs .50

Wilton, E .50

4.00

June 22 By livery, Cruickshank 10.00

Oct 14 By books, Parker 4.00

Oct 22 By printing, Advocate 2.50

Nov 1 By balance at bank 27.05

\$49.75

Some Notes of a Winter's Tramp up Sulphur Mountain, Banff.

*Paper prepared for the Red Deer Branch by E. N. Sanson, Esq., Curator National Park, Banff.* Naturally, one does not expect to see very much life on any of the mountains about Banff, during the winter

months, outside of fur-bearing animals or the traces of them. But there are, during the milder weather in winter, certain interesting insects found on the snow of which I shall first make mention.

The Snow-Flea (*Achorutes nivicola*) of the order Thysanura, family Poduridas (spring tails and bristle tails.) The spring tails are very primitive and degraded insect forms and are all wingless, and undergo no metamorphosis. The mouth parts are quite rudimentary and retracted within the head, only the ends projecting. Their bodies are covered with scales, and they can adhere to surfaces. These spring-tails occur everywhere, under leaves, the bark of trees, under the surface of water and on mushrooms, and rarely live except in moist and shady places where their eggs are deposited. Some of the Podurids are prettily coloured and patterned. The scales are very minute and bear many fine lines and cross lines regularly arranged. On this account they are very much used as test objects for microscopes, the quality of the lens being determined by its capacity to reveal their extremely fine markings. Dr. L. O. Howard, in his book on insects says: "The Podurids are amongst the most abundant of insects, although, on account of their excessively small size, they do not attract attention. There are about six species in North America, and they are commonly found in deep soil which contains more or less humus, and have been taken in stiff clay sub-soil at a depth of six feet; but they probably penetrated to this depth by following the path of rootlets."

The Snow Flea (*Achorutes nivicola*) of this family is sometimes seen in great numbers leaping on the snow, mostly in spring and fall, but sometimes during milder weather in winter. I have seen many thousands on the surface of the snow on the trail of Sulphur Mountain. They simply covered the trail for 1500 feet more or less.

They leap vigorously to a considerable height and distance when alarmed, by means of a long appendage near the extremity of the body on the second from the last segment. This appendage is hooked, and, on being loosed, throws the insect high in the air. They also work their way under the snow by means of the minute openings—to what depth I am not aware. Comstock says the snow-flea is sometimes a pest where maple sugar is made, the insect collecting in large quantities in the sap. The immature specimens of a Podurid, perhaps *Achorutes nivicola*, are occasionally seen in yellow pollen-like masses on the snow and ice on Sulphur Mountain, both on the trail and on the top. They are snow-born, as their specific name implies. When I first saw one of these clumps of yellow matter, and before closely examining, I thought it was sawdust from a decayed tree, or the mycelium of some fungus. These immature specimens soon die if taken from their natural habitat. Both these and the mature insect are best kept in alcohol as specimens.

*Boreus Californicus*: Strange little, wingless, shining-black, leaping insects found on snow, of the order Mecoptera, scorpion-flies, family Panorpidae (or order Neuroptera, but not truly so.)

The front of the head is greatly elongated into a sort of beak, antennae slender, body less than 1/4 inch long, simple eyes, ocelli absent.

The metamorphosis is complete. They are carnivorous. The female *Boreus* is wingless, the male having rudimentary wings, and both look something like minute wingless grasshoppers. *Boreus Californicus* is the Pacific Coast species of about four species in North America. It occurs on the surface of the snow during winter in milder weather, and in spring or fall on Sulphur Mountain, also in the valley, but not so abundant, often quite numerous.

They leap and feign death when alarmed. I have taken specimens every winter month in different years, sometimes at temperatures several degrees below freezing point; good specimens can be made of them for the cabinet. These insects are often found with the Snow-flea and also with the following:  
Snow-Fly *Cnionea Vulga* (Harris) order Diptera, Family Tipulidae (Crane flies). *Cnionea* is a curious wingless genus and is found on snow, has the balancers of the fly, and looks, with its long legs, not unlike a small harvest spider. I took it to be a spider on the first seeing it. The body is a sort of light chocolate brown, legs long, but not quite so fragile as those of the crane flies: walks with a more or less stately tread over the surface of the snow, sometimes rather rapidly. This *Cnionea* is found Sulphur Mountain, but in milder weather during winter. I have taken specimens every winter month (during different years). occasionally at temperatures several degrees below freezing point. The *Cnionea* do not leap, but feign death like a spider *Vulga* is not found in any numbers.

*Cnionea Nivicola*. Doane, a slightly larger species, light brown, rare on Sulphur Mountain. I have only taken about one dozen specimens in several years. This is also found on the snow. Both these *Cnionea* up on drying, and make poor specimens for the cabinet. Aldrich's catalogue of diptera records only specimens from Pullman, Washington.

The above are practically all the real winter snow insects, but the following are found lively on the snow during spring and fall. March, April and May, and September, October and November and sometimes at temperatures below freezing point, still and active.

Chironomus, or midge species not altogether uncommon on the snow; and some *Scatophaga* species, all of the order diptera.

Of Coleoptera. (Beetles)

*Bombidium longulum*, (small Beetles) are found on snow fairly common.

*Hydnobius Matthewsii*, on snow September and October, a small beetle fairly common at times.

Species of *Homolata* of the Hemitera in spring and fall, infest fungi, tolerably common.

An arctic caterpillar, larva of the beautiful little moth *Neocarctia beanii*, some years in spring is seen. On May 4, 1906 these caterpillars were fairly numerous on the snow on Sulphur Mountain, far away from what little exposed rock or soil there was, about 2500 feet elevation, and moving rather actively.

Spiders are occasionally seen in winter, during milder weather, and other insects and larvae —some of the larvae falling from trees.

Of the animals I have seen but few different kinds in the winter, though the tracks of several other are often numerous.

Of those seen, the snow-shoe rabbit, or varying hare, (*Lepus Americanus*) are at times very numerous, and again being almost exterminated, as in 1909, 1910 by the nature of the winter and by disease. Ticks become so numerous in these rodents' ears as to cause weakness, when they are the more easily taken as prey and also die. They change to white about November, and to their summer hue of grayish or mauvish -vish gray about May. and come about the hut. They are again increasing.

The common red squirrel, (*Sciurus Ricinorosoni*), a few of which are seen with their tunnels under the snow to their stores of cones and fungi.

White footed, or deer mouse (*Peromyscus leucopus*) by far the most abundant rodent or mammal on this or other mountains. Especially is it found in numbers on the top of Sulphur Mountain. and the observatory hut swarmed with them on one occasion. While remaining overnight in the hut I caught, with one trap, one every ten or fifteen minutes, and calculated that about 40 or 50 different individuals

came into the building during the night. They came in under rock openings; after considerable work this was stopped. They were very destructive, making very bulky nests of all sorts of material and were apparently not particular as to their food, gnaw in order to get into buildings, but so more scraping. The shrew mouse perhaps a different species, is also found on Sulphur Mountain. They come out in the coldest weather, and have their openings through the snow. They are not averse from having a swim in icy water.

The mule deer are occasionally seen and are, by the way, remarkably tame and can be photographed without much bother or time.

The other animals whose traces are often seen are the Canada lynx (*Lynx Canadensis*), which with the rabbits becomes more or less numerous, the coyote, weasel, martin, and probably others at present unknown to myself.

Of the birds, Richardson's Grouse sometimes startles one by suddenly flying up from under the snow on the trail. A friend of mine, who undertook one of my regular trips to the hut, came down when it was quite dark. Being delayed by heavy work, and got quite a scare by one of those birds fluttering up almost in his face: not knowing what it was he wondered what was coming next. There are the larger birds of the grouse family, and live a good deal on the barberry, which carries its fruit through the winter, and is abundant on all the mountains.

The Canada Jay, with its mimicry, even to laughing, follows one from tree to tree in expectation of food. It builds in March.

Clark's crow disappears for a time, but is seen in the early winter and spring.

Pine grosbeaks are seen occasionally. A tame bird here at Banff, with these are also seen flocks of Bohemian waxwings, and I have seen a waxwing act as sentinel for both a flock of grosbeaks and waxwings, while feeding on the ground..

American crossbill occasionally seen.

Red Polls occasionally seen.

Prigons Chickadees, a very inquisitive bird, seen fairly often, with a few different species of woodpeckers.

The Ptarmigan is most of a valley bird in winter.

I might have made these notes to cover a paper including the mountains in the vicinity of Banff proper, the extra animals would then include goats and sheep.

#### Annual Report of the Innisfail Branch:

Ladies and Gentlemen - I beg to present this following report for the Innisfail Branch:

Since the deferred annual meeting last June, I have made one or two attempts to get a meeting, but as so many of our members have left town, I found it impossible to do so. Some of our members have done a little field work, but in the absence of a secretary, this has not been tabulated and is not available at this time. It is my intention to call a meeting early in the new year with the purpose of definitely finding out whether or not it is worth while to try to keep the branch going. We have a small library of 13 volumes made up as follows:

1 volume Standard Library of Natural History.

1 copy American Animals.

1 copy Lydekker on Birds. Vol. IV

1 copy Color Key to N. American Birds.

1 copy Mountain Wild Flowers of Canada  
1 copy How Minerals Occur.  
3 handbooks, 1 each Land Birds. Water Birds. Wild Flowers.  
The following is a list of remaining members:  
Rev. J. & Short Rev. and Mrs. M. T Haberston  
Mrs. A. E. Keast. Mr. and Mrs. Wm. Geary  
Mr. G. Q. Geary- Mr. Jas. Jenson.  
Our cash balance in the bank at present is \$5.11  
Regretting that we have not been able to make a better showing, I am.  
Yours very sincerely.  
W. M Geary  
*President*

Annual Report of the Erskine Branch Dear Sir,—Following is the annual report of the Erskine Branch of the Natural History Society:  
Yearly officers: : Mrs S S. Judd. President; Mrs; R. C. Parker. Vice-president: Mrs. C. P. Morton, Secretary-Treasurer. Yearly work: Elementary study of birds, flowers, bugs and geology  
Yearly income: \$10.00 grant; \$4.50 membership fees.  
Expenditures: Nothing.  
Liabilities: Nothing,  
Assets: \$31.28. Members in good standing, nine  
Yours truly,  
Bessie Hughes,  
*Secretary Pro Tern. E*

#### ELECTION OF OFFICERS.

The election of officers for 1913 resulted as follows:  
Hon. President : Honourable Duncan Marshall.  
Hon. Vice-Presidents: Mr. George Harcourt and Mr. Michener.  
President: Mr. R. E. Fiske, Hillside.  
Vice-Presidents: Dr. H. George, Mr. Geary, Mrs. Judd.  
Secretary-Treasurer: Rev. J. S. Shortt, Innisfail. EXECUTIVE COMMITTEE.  
N. B. Sanson, Banff ; Mrs. Dr. George, Red Deer ; Mrs. Keast, Innisfail ; Mrs. Tallman, Red Deer ; Mrs. Cottingham, Red Deer ; Mrs. Hughes,  
Erskine; Mrs. Geary, Innisfail; Mr. Munroe, Red Deer; Mrs. Greene,  
Red Deer.

J. S. Shortt,  
*Secretary-Treasurer.*