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THE OTTAWA NATURALIST

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1915

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1916

THE
OTTAWA NATURALIST

Being Volume XXXI of the

TRANSACTIONS

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THE OTTAWA NATURALIST

VOL. XXIX

APRIL, 1915

No. 1

ANNUAL REPORT OF THE OTTAWA FIELD-NATURALISTS' CLUB, 1914-15.

The council of the Ottawa Field-Naturalists' Club, on the completion of another Club year, begs to report on the work during the past season. The work of the Club has been conducted along much the same lines as have been followed in past years and, with some features especially, good progress has been made.

Standing committees, the editor and associate editors of **THE OTTAWA NATURALIST**, the librarian and excursion leaders, were appointed at the first meeting of the council, held on March 31. Five meetings of the council were held during the year. Fewer meetings than usual were required on account of more work being handled directly by the sub-committees. Connection with other scientific organizations has been maintained through correspondence, exchange of publications and other means. The Club was represented at the meeting of the Royal Society of Canada, held in Montreal, by Dr. C. Gordon Hewitt.

During the year substantial progress has been made in securing new members, 43 being elected, compared with 14 last year. Against this 25 members have resigned or have been removed from the list by death, leaving a net gain of 18. The membership of the Club is now 329. Unfortunately, an unusually large number of members have not paid their dues, which has hampered the work of the Club considerably. At the close of the year there is a balance of \$36.25, with some accounts unpaid.

PROTECTION OF BIRDS AROUND OTTAWA.

The arrangements announced in Dr. Hewitt's lecture before the Club on February 10, 1914, (**OTTAWA NATURALIST**, March, 1914, pp. 161-171), for the distribution of nesting boxes in Rockcliffe Park and the Central Experimental Farm and Botanical Gardens, which areas were declared bird sanctuaries, were carried out in

the spring. The Ottawa Improvement Commission instructed their Superintendent, Mr. Stuart, to have 250 nesting boxes of the two sizes recommended made, and these were distributed throughout Rockcliffe Park. The Department of Agriculture purchased and distributed at the Experimental Farm 160 nesting boxes of the Berlepsch pattern of three sizes suitable for birds using such cavity nests, from wrens to flickers. Many of the boxes in Rockcliffe Park were not very suitably hung, which would prevent a large proportion of them from being used, as would otherwise have been the case; nevertheless it was seen that some of the boxes were utilized. Many of the boxes at the Central Experimental Farm were inhabited in spite of the fact that this distribution was unavoidably delayed. Wrens, bluebirds and three swallows were observed making use of them; in one case a box was appropriated by a pair of wrens the day after it was hung.

Before the opening of the spring it is intended to make a complete examination of all the nesting boxes in Rockcliffe Park, and at the Central Experimental Farm, for the purposes of cleaning and ascertaining the number of the boxes occupied during the season of 1914.

Encouraging reports have also been received from private individuals who adopted our recommendation and provided nesting boxes in their gardens. The example that has been set and the educational work since carried on is having very gratifying results in other parts of Eastern Canada.

THE OTTAWA NATURALIST.

The official organ of the Club, THE OTTAWA NATURALIST has appeared regularly during the year. Volume XXVIII, comprising 180 pages, has been completed. Mr. Arthur Gibson has continued to edit it. The following are the most important papers published in the volume:—

- "On a new genus and species of carnivorous Dinosaur from the Belly River Formation of Alberta, with a description of the skull of *Stephanosaurus marginatus* from the same horizon." By L. M. Lambe.
- "The Waterways of the Mackenzie River Basin." By Charles Camsell.
- "Lichens from Vancouver Island. By G. K. Merrill.
- "Abscission." By F. E. Lloyd.
- "Gall Midges as Forest Insects." By E. P. Felt.
- "The Problem of Bird Encouragement." By W. E. Saunders.

- "Myosurus in Canada." By E. L. Greene.
- "The genus *Antennaria* in Greenland." By M. P. Porsild.
- "Geological Survey Museum Work on Point Pelee." By P. A. Taverner.
- "Pleistocene Raised Beaches at Victoria, B.C." By C. F. Newcombe.
- "The Snow-flea." By Charles Macnamara.
- "List of Tachinidae from the Province of Quebec." By J. D. Tothill.
- "The value of some Mammals and Birds as destroyers of Noxious Insects." By Norman Criddle.
- "*Ceramograptus ruedemanni*." By G. H. Hudson.
- "The Banded Pocket Mouse, *Perognathus fasciatus* Wied." By Stuart Criddle.
- "The New Zealand *Peripitus*." By E. E. Prince.
- "Notes on the Preparatory Stages of *Proserpinus flavofasciata ulalume*." By Arthur Gibson.
- "Hybridization in the genus *Viola*." By M. O. Malte and J. M. Macoun.
- "Fauna Ottawaensis: Order Lepidoptera: Family Noctuidae subfamily Phytometrinae." By Arthur Gibson.
- "Botanical notes from Portneuf Co., Que." By Bro. M. Victorin.

THE LIBRARY.

During the past year a large number of requests for back numbers of THE OTTAWA NATURALIST have been received. In some instances the current issues were not all received by the members, but in most cases only a few numbers were required to complete volumes.

The Club library is now in a somewhat more satisfactory condition than a year ago. During the year the books and other publications stored in the Carnegie Library were catalogued and systematically arranged on the shelves. The catalogue is now undergoing revision, the most valuable publications being selected and listed for the purpose of publication in THE OTTAWA NATURALIST.

At present no use whatever is being made of the library, but it is hoped that in the near future arrangements will be completed, which will enable members to make some use of the valuable literature belonging to the Club.

EXCURSIONS.

A meeting of the Excursions' Committee, to arrange for the spring excursions, was held in the Carnegie Library on Wednesday, 8th April. There were present Mr. Halkett in the chair, Mr. Carter, Dr. Williams, and Miss Fyles. It was decided to hold excursions as follows, subject to the approval of the council:—

- May 2nd—Rockcliffe.
 9th—Above the Chaudiere Falls—north shore
 Ottawa River.
 16th—Britannia.
 23rd—Ironside.
 30th—Leamy's Lake.
 June 6th—Rideau Canal by motor boats.
 13th—Stittsville.
 20th—Fairy Lake *via* Chelsea Road.
 27th—Experimental Farm.

Seven of these excursions were held—that on the Rideau Canal being cancelled as no motor-boats could be had, and that to Stittsville also cancelled as arrangements could not be made for the C.P.R. express to stop at that station. There was some misunderstanding, too, as to an early afternoon train up the Gatineau line, so that the excursion arranged to be held at Ironside on 23rd May was postponed until 6th June, and that to Fairy Lake substituted for it.

Two excursions were also held during the autumn—one to McKay's Lake and the other to the Experimental Farm, both of which were well attended.

LECTURES

The series of lectures presented during the winter was also very successful. The attendance was good, and the subjects discussed of much interest. The following is the programme as carried out:—

December 8th, 1914, (Tuesday). "Sea Fisheries of Norway." Illustrated with lantern views. By Dr. J. Hjort, of Norway. In the Normal School Assembly Hall.

January 12th, 1915, (Tuesday). "The Royal Botanic Gardens, Kew." Illustrated with lantern views. By Prof. R. B. Thomson, Botanical Laboratory, University of Toronto. In the Normal School Assembly Hall.

January 26th, 1915, (Tuesday). "The Indians of the West Coast." Illustrated with lantern views. By Dr. Edward Sapir, Department of Anthropology, Geological Survey, Ottawa. In the Normal School Assembly Hall.

February 9th, 1915, (Tuesday). "Fossils." Illustrated with lantern views. By Mr. L. D. Burling, Geological Survey, Ottawa. In the Carnegie Library Assembly Hall.

February 23rd, 1915, (Tuesday). "Milk." Illustrated with lantern views. By Mr. J. H. Grisdale, Director Experimental Farms, Ottawa. In the Normal School Assembly Hall.

March 9th, 1915, (Tuesday). "Some Interesting Canadian Birds." Illustrated with lantern views. By Dr. M. Y. Williams, Geological Survey, Ottawa. In the Carnegie Library Assembly Hall.

March 23rd, 1915, (Tuesday). Annual Meeting and Presidential Address, "The Habits of Insects in Relation to their Control." By Mr. Arthur Gibson, Entomological Branch, Department of Agriculture, Ottawa. In the Carnegie Library Assembly Hall.

THE BOTANICAL BRANCH.

This branch of the Club held seven meetings during the 1914-15 winter season; two each at the residences of Mr. Geo. H. Clark and Mr. R. B. Whyte, and one each at the residences of Mr. D. A. Campbell, Mr. W. T. Macoun and Mr. J. M. Macoun.

At these meetings there was an average attendance of about 14 members. Reports of these meetings are printed in THE OTTAWA NATURALIST. The subjects presented were as follows:

- "The Possibilities in Canada for Home Grown Seed," by Messrs G. H. Clark, M. O. Malte and W. T. Macoun.
- "Some Canadian Wild Fruits," by J. M. Macoun; "Climatic and Soil Conditions as They Influence Plant Life," with special reference to Canadian Grasses, by M. O. Malte.
- "The New Greenhouses at the Experimental Farm" and lantern slides illustrating some "Native Shrubs and Trees," by W. T. Macoun.
- "An Account of a Trip to Egypt and Palestine," by R. B. Whyte and lantern slides of "Plant Adaptations," by D. A. Campbell.
- "Forestry Problems in Canada," by J. R. Dickson and "Facts regarding the Organization of the Forestry Branch," with lantern slides, by C. J. Tulley.
- "Wood Fibre—Its Uses in Pulp and Paper Making," by J. S. Bates, of the Forest Products Laboratories, McGill University, Montreal.

THE ENTOMOLOGICAL BRANCH.

The Entomological Branch has held no meetings during the winter of 1914-15. This has been largely owing to the fact that there are very few workers in entomology, other than those employed officially in the Department of Agriculture.

Throughout the Ottawa district large numbers of insects in the various orders were collected during the season of 1914 for systematic study and many new records have been obtained. Many of these captures are being recorded in the Entomological Record for 1914, which will appear in the annual report of the Entomological Society of Ontario for that year.

ACKNOWLEDGMENTS.

The Club has again been fortunate in securing suitable accommodation for lectures and committee meetings through the courtesy of the management of the Carnegie Public Library and the Normal School, and our thanks are also due to the city press for free insertion of lectures and excursion notices and reports.

Respectfully submitted,

E. D. EDDY,

Secretary.

ERRATUM.

In Mr. Melville Dale's article on "August Bird Life at Pleasant Point, Ont." which appeared in the March (1915) issue of THE OTTAWA NATURALIST, the four paragraphs on page 174 beginning with "The discovery of this bird" and ending with "within the range of the observer" should have been placed under the Caspian Tern, *Sterna caspia*, and not under the Bluebird, *Sialia sialis*. Ornithologists please make note.

SUBSCRIPTION 1915-1916.

Members of the Club are reminded that membership fees for 1915-1916 are now due, and that the same are payable to the new Treasurer, Mr. G. Le Lacheur, Seed Branch, Department of Agriculture, Ottawa.

TREASURER'S STATEMENT 1914-15

Receipts.

Balance from 1913-14.....	\$ 28.59
Membership fees:	
Arrears.....	\$ 16.00
1914-15.....	138.00
1915-16.....	33.00
	<hr/>
	\$ 187.00
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	187.00
Advertisements in THE OTTAWA NATURALIST.....	93.90
Authors Extras sold.....	82.29
Provincial Government Grant.....	200.00
Miscellaneous.....	1.43
	<hr/>
	\$ 593.21

Disbursements.

Printing THE OTTAWA NATURALIST, 8 Nos. of Vol. XXVIII.....	\$ 305.09
Illustrations.....	27.18
Authors' Extras.....	92.14
Miscellaneous printing, envelopes, etc.....	24.30
Postage, THE OTTAWA NATURALIST to mem- bers.....	23.89
Editor.....	50.00
Lectures expenses.....	18.00
Postage, bank exchange, etc.....	16.36
Cr. Balance.....	36.25
	<hr/>
	\$ 593.21

Examined and found correct.

J. BALLANTYNE,

E. C. WIGHT.

J. F. WATSON,

Auditors.

Treasurer.

SUGGESTIONS FOR ORNITHOLOGICAL WORK
IN CANADA*

BY P. A. TAVERNER,
Geological Survey, Ottawa.

In surveying the results of ornithological work done in the Dominion to date, one is struck with the number of blank spaces in our knowledge, and the fine field yet offered for original research.

In the subject of life-histories, there is hardly a species, amongst our typical Canadian forms, that has been comprehensively worked up. Most of the work accomplished along these lines has been done in the adjoining republic and describes conditions abroad, slightly foreign to us zoologically as well as politically. Of course, our workers have been fewer both actually and proportionally in Canada than in the United States, and perhaps under the circumstances the broader generalizations that our few have accomplished has been of more pressing nature than the detailed surveys accomplished in the older community.

In geographical distribution our knowledge of Canadian avifauna is fragmentary and, if it were not for the results of work accomplished in the United States, would still be but an outline. The Maritime Provinces have been touched but locally. The Labrador and the Gulf of St. Lawrence has been worked intermittently. From Montreal west to the Toronto region but high spots have been touched; in fact, the southern peninsula of Ontario is perhaps the only area of any size in Canada, that has had anything like adequate attention from an ornithological standpoint. From a line east of Georgian bay to the Manitoba boundary we know practically nothing of bird conditions. Continuous systematic work in Manitoba ceased some years ago and the other Prairie Provinces—Saskatchewan and Alberta—have received but desultory attention from visiting naturalists. British Columbia is being investigated in spots but most of its area except locally in the southern portions is a *terra incognita* as far as exact ornithological knowledge is concerned.

In the northern regions, on the Yukon river and some of its tributaries and main highways, considerable work has been done by occasional visitors. Along the route from Lake Athabasca

* Published by permission of the Deputy Minister of Mines.

to the mouth of the Mackenzie river various investigations have been conducted from time to time and, considering the accessibility of the locality, our records are comparatively full.

The Arctic coast of Coronation gulf has been, and is being studied. Of Hudson's bay and Ungava we have but scattered notes and short lists. Though considerable geographical exploration has been conducted by various parties amongst the islands of Franklin and the far north, our knowledge of the ornithological conditions there is fragmentary and imperfect.

In economic ornithology, Canada has done little if any original work.

In systematic science our working collections have been, and still are, too small to accomplish anything comparable to the work done on our own forms in the United States, even if we had our natural quota of trained zoologists to use such material to advantage.

Thus, it seems that ornithology in Canada still has most of its history before it, and outside of a few brilliant exceptions the work that should have been done by our own people has been accomplished by naturalists from the United States who have turned their attention in our direction.

The introduction of nature study in our schools and the general interest that has been awakened in allied subjects of late years has not, to date, entirely fulfilled the results expected of it. In fact, reliable observers of ornithological phenomena, both in Canada and the United States, are, perhaps, fewer to-day both numerically and in proportion to population than they were a generation ago. An elementary introduction to nature in our schools has failed to awaken any serious interest in natural problems. General and elevating interest in nature may be more widespread to-day but no ornithologist of marked ability has found his or her avocation or has been developed through these means. Whether this has been the fault of methods pursued, or causes more deep seated, the writer cannot tell. Certainly if, a generation or so ago, when the opportunities for learning even the rudiments of natural history were few and difficult to obtain, naturalists were developed at all, we should expect that to-day when the subjects are taught in every public school and the introduction to the study is almost forced upon large numbers of people, the percentage of serious and enthusiastic workers would be greater. These are the facts; the causes of the apparent failure must be left to pedagogs to argue over.

Does it not seem that Canada has reached that stage in its development where it can take its rightful position in the world as well along ornithological as in other lines?

For many years the Geological Survey of Canada has devoted what attention its limited staff could spare from its numerous other activities towards gathering Dominion ornithological data and there have been a few private investigators that have been observing and noting with commendable industry. With the broadening out of the work of the Geological Survey and its Museum, great impetus should be given to bird work in Canada. Museums are also being started or rejuvenated in the various provinces and the time seems ripe for a general waking of interests in zoological subjects. To call attention to our shortcomings in data and workers it seems advisable to outline a few fruitful fields of endeavour that can be worked by various individuals whose tastes incline in that direction.

Ornithology can be approached and studied from various sides and by individuals of many different tastes and inclinations. For the general nature lover, interested in birds from a poetic or aesthetic standpoint, the study of life-histories offers a most attractive field. Careful watching and observing of feathered friends in their secluded haunts, bloodlessly stalking them with camera and note or sketch-book and divining the hidden secrets of their lives is a pleasure that can be indulged in by all and enjoyed by many. The most common bird of our vicinity is an object worthy of the most careful and painstaking attention. The Wren building in the improvised nesting box in the garden, the Song sparrow of the near-by thicket are both awaiting a careful record of the story of their daily lives. The amount of original, valuable and interesting information, that can be gathered from such homelike sources is almost infinite and unexpected surprises will almost daily repay the close observer. To those whose time and opportunities are limited such birds about home are fruitful. By those with more leisure, greater ambition or ampler opportunities work farther afield may be pursued and species less commonplace can be studied. In fact there is work in this line for everybody of widely divergent taste and situation and even city parks and backyard gardens will amply repay attention.

As a suggestion for investigation, the following outline of problems to be solved may be followed. It is merely suggestive and can be enlarged indefinitely.

Is the species a resident or a migrant?

When does it arrive and leave?

What are the determining influences upon its migrations,— food supply, weather, or does physiological development produce a periodical desire to migrate?

Which individuals come or leave first, male or female, young or old?

Are they mated when they arrive or do they select mates after arrival?

Are there any courtship ceremonies?

What characters seem to determine sexual selection? Vigor? Beauty? Song?

Do the same individuals return year after year to the same localities, and do they mate together annually?

How wide is the local range of the individual, do they keep close to this home area or wander widely?

When, where and how do they nest?

Which sex chooses the site?

Which sex builds the nest and how much and in what way do they aid each other?

What seems to be the qualities that they look for in selecting a nesting site?

Do they work on the construction throughout the day or only at regular intervals?

What is the technic of nest building?

Is the technic the result of instinct, experience or memory and does it improve with experience.

Are all individuals of the species equally expert in nest building?

How far can they adjust nest to new materials, situations or conditions?

Is there any change in the routine habits before, during or after nest building?

Are the eggs deposited immediately after the nest is finished?

What is the incubation period?

How many eggs are laid and when, how often, what is a normal set?

Does the egg laying seem under the conscious control of the individual?

What determines the number of eggs,—the size of the nest, the judgment, age or vigor of individual?

How are the eggs brooded, by which sex, do they divide the labor? Are the feathers removed from the abdomen of the brooding bird consciously or do they wear off by friction with the eggs? What is the incubation temperature? How often are the eggs turned by the parent?

How are the eggs protected during exceptionally inclement weather?

This list covers but a short time in the bird's life, but it shows how much can be learned and studied in but one phase of its existence; other moments in the lives of any species are equally interesting.

One of our greatest desiderata is an accurate investigation of distribution of bird life in the Dominion. The uninitiated rarely realize how many of the published ranges of our birds are based upon geographic probabilities, a *priori* reasoning or are copied and recopied, from previous writers. Examples are many. A great proportion of our southern Canadian lists give the Northern Hairy woodpecker as the common form and the Eastern Water thrush as ranging to the plains. The fact is, that the first is but a very rare winter visitor to the area, and Grinnell's Water thrush is the common form in the Lake Erie peninsula. Many more such cases could be cited. The only basis acceptable for such determinations are specimens examined by trained experts. Even when the forms are collected, comparison with series of specimens of allied forms is necessary to certainly established its identity. In these we are woefully lacking and still have to depend upon the courtesy and interest of our friends across the line in the separation and substantiation of many difficult forms.

To establish the Canadian ranges of our birds, their migration routes and general status, we need skilled observers at all possible points, to note and collect local data and specimens. Ideally there should be an observer and collection in every county in the Dominion; each keeping track of his own area and comparing and checking it with results from adjoining stations. Provincial Museums should gather up these local details within their sphere of influence and the whole should be amalgamated and correlated by the Dominion authorities, represented by the zoological branch of the Geological Survey at Ottawa. In this way we would have co-operation and series of local collections illustrating intensive work throughout the Dominion.

All such work, however, to be of service must be based upon exact personal knowledge and substantiated in every way possible. We look back to-day upon apparent mistakes made by our predecessors, even those of marked and recognized ability, and wish for data by which to check their statements. The next generation will demand the same of us and with more reason for impatience, if it is absent. Ornithology has advanced and the necessity for substantiating everything is more generally recognized now than in the past.

(To be continued)

MEETING OF BOTANICAL BRANCH.

February 5th, 1915, at the residence of Mr. D. A. Campbell. There were present Messrs. Blackadar, Buck, Clark, Dymond, Donaldson, Fryer, Grindley, Honeyman, Lelacheur, Newman, Simpson, Tully, Whyte and the host, Mr. D. A. Campbell.

Mr. R. B. Whyte described his recent trip to Egypt and Palestine, and exhibited interesting specimens, photographs, etc., collected during the trip. Mr. Campbell showed a series of lantern slides, consisting of certain examples of the adaptation of plants to their environment, etc., which are used in his botanical and nature study courses at the Collegiate.

Mr. Whyte, in addition to describing many interesting experiences in Egypt and Palestine, drew attention to places through which they passed en route. Madeira, for instance, the first stopping place, produces large quantities of grapes and sugar canes; Gibraltar, the great fortress; Algiers, the city with beautiful Moorish architecture; Monaco and Monte Carlo, with their unique histories and present tragedies; the trolley-ride to Nice with the blue waters of the Mediterranean, 200 feet below; Naples and Pompeii—all received passing notice. The country between Alexandria and Cairo was described as flat, with canals about a mile apart intersecting it in all directions. The houses, in many cases, are built of mud, and elaborate pumping systems distribute the water to the agricultural land, from which several crops are taken every year. In this district a forage crop, somewhat like alfalfa, known locally as berseem, is produced in great quantities. It is really one of the clovers, and is listed as Egyptian or Alexandrian clover, an annual winter variety used in warm countries where irrigation is practiced. Wheat is also produced in great quantities around Alexandria.

At Cairo, Mr. Whyte found many things of interest in its numerous bazaars and incidentally picked up a new method of buying. At Ghizeh, noted for its pyramids, 14 in all, the canals are far below the level of the Nile. Heliopolis, five miles from Cairo, was the old university city of Egypt. Only an obelisk is now left to mark its site.

From the standpoint of the botanist, there was not very much of great interest in the Nile valley. Only a few weeds or wild flowers had an opportunity of becoming established, owing to the annual overflow of the river. A small iris and a few odd weeds were all that could be found. All the public parks of Egypt, such as those in Cairo, had flower beds, in which were grown popular garden flowers like the annual phlox, verbena, etc. Farm hands in Egypt received from 15c. to 25c. per day.

At Jaffa, the port of entry to Palestine, Mr. Whyte picked the fine flavoured Jaffa oranges. The orange groves extend

for about eight miles around the city. Most of the crop is sent to England. A very effective hedge, consisting of a form of cacti is generally used around the orange groves. The country around Jaffa is fairly prosperous. The field crops consist largely of wheat. The flowers of this region are poppy anemones, and cyclamens, many of the latter being as good as our cultivated forms. Thirty miles inland from Jaffa, the country begins to get barren and desolate. Palestine has few trees and in the Jerusalem district the Olive is the only tree. There are a few annual flowers.

Mr. Whyte spent four days in Jerusalem and from there visited such places as Bethlehem. His large collection of picture postcards added interest to the talk.

F. E. B.

EXCURSIONS.

The Excursion Committee of the Club has arranged the following spring excursions:—

- May 8—Rockcliffe.
- " 15—Iron Mines at Ironside.
- " 22—Britannia.
- " 29—Aylmer.

June 5—Rideau Canal by Motor Boats.

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For an essay on any topic relating to Canadian Botany—No limit to length. Prize valued at \$5.00 offered by Mr. H. T. Gussow, Dominion Botanist, Experimental Farm, Ottawa.

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For the best collection of at least 200 species of insects from the Ottawa District, special marks to be given for species attacking garden and field crops. Prize valued at \$5.00 offered by Mr. Arthur Gibson, Entomological Branch, Ottawa.

For the first information of a prehistoric village site or cemetery within ten miles of the Victoria Memorial Museum, available for exploration. Prize valued at \$5.00 offered by Mr. Harlan I. Smith.

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