1878 PER 2-1074

PROCEEDINGS

AT THE

ANNUAL MEETING

OF THE

Natural History Society of Montreal

FOR THE YEAR ENDING MAY 17TH, 1878.

Montreal:

MITCHELL & WILSON, PRINTERS, 102 ST. PETER STREET.

1879.

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NATURAL HISTORY SOCIETY.

PROCEEDINGS FOR THE SESSION 1877-78.

MONTHLY MEETINGS.

1st Monthly Meeting, held October 29th, 1877.

Principal Dawson read a communication "On some Fossil Remains of Phoca Greenlandica," forwarded by Dr. Grant of Ottawa.

Mr. A. R. C. Selwyn exhibited and described a large calcareous sheath of an extinct geyser, disinterred at Three Rivers, and sent to the Museum of the Geological Survey by M. Genest.

Dr. Graham Bell's Telephone was exhibited in operation by Mr. Murray of the Canadian District Telegraph Company, and placed in communication with Emmanuel Church. The instrument was explained and illustrated by Dr. Baker Edwards, and conversations, music, &c., successfully transmitted.

2nd Monthly Meeting, held November 24th, 1877.

A paper was read by Mr. G. L. Marler on the Society's excursion to Oka, also an account of the settlements of the Indians there.

Principal Dawson read a paper "On the recent Earthquake, with an historical sketch of celebrated Earthquakes in Canada."

A very fine display of Canadian fish and game was hung in the lecture room, being a portion of the Canadian food collection prepared for the Paris Exhibition by Dr. S. P. May, and chiefly collected from the markets in Montreal during his brief visit here. Mr. Marler made some remarks on the birds, most of which had fallen to his own gun on various occasions. Mr. Whiteaves named and commented upon the fishes exhibited.

3rd Monthly Meeting, held January 28th, 1878.

Mr. F. B. Caulfield read a paper on "The Colorado Beetle," which has since been published in the Canadian Spectator.

Principal Dawson presented a communication from Mr. L. S. Parker on a "remarkable form of Dendrite," resembling a fossil leaf, but formed of Tourmaline crystals. Other forms of dendrite in sandstone and in slate were also exhibited.

4th Monthly Meeting, held February 25th, 1878.

This meeting was devoted to Microscopic illustrations by members of the Microscopic Club, and the subject introduced by a brief description of the different modes of microscopic illumination, by the Recording Secretary. Messrs. McEachren, Osler, and Edwards were a Committee to arrange for the illustrations, and the students of the Colleges interested in the subject were invited through their Professors. More than thirty valuable instruments were exhibited, and the Committee were especially indebted to Messrs. Ferrier, Baillie, J. F. Whiteaves, W. Muir, E. Murphy, Dr. Wilkins, Dr. Osler and Dr. McEachren for illustrating the various modes of illumination both under high and low powers.

The meeting was well attended, and much pleasure expressed by those present.

Fifth Monthly Meeting, held March 25th, 1878.

Dr. G. M. Dawson read a paper "On the Surface Geology of the Pacific Slope of the Rocky Mountains."

He also made an interesting communication on some skulls and Indian antiquities brought by him from British Columbia, and exhibited at the meeting.

Sixth Monthly Meeting, held April 29th, 1878.

Principal Dawson read a communication from Lt.-Col. Grant, of Hamilton, on "Recent Discoveries in the Niagara Limestone." Also a paper by himself on "New Facts relating to the Geology of the Maritime Provinces."

The consideration of holding a field day was referred to the Lecture Committee.

ANNUAL MEETING.

The Annual Meeting of this Society was held on the 18th of May, 1878, and after the reading of the minutes, the President delivered the following address:

ADDRESS BY PRINCIPAL DAWSON, LL.D., F.R.S.

It becomes us in our present meeting to commemorate the names and services of eminent Naturalists associated with this Society who have passed away in the course of the year.

Dr. Philip Pearsall Carpenter was a son of the late Dr. Lant Carpenter of Bristol, and a member of a family distinguished for brilliant gifts and philanthropic enterprise. His brother, Dr. William B. Carpenter of London, and his sister lately deceased, the well known philanthropist, Mary Carpenter, need only to be mentioned in illustration of this. Dr. Carpenter was born in Bristol in 1819, and was thus fifty-six years of age at the time of his lamented decease. In 1865 he selected our city as his place of residence, and soon became one of our best known and most beloved citizens, distinguished more particularly for his fervent devotion to temperance and sanitary reform; and though much remains to be done in both of these benevolent efforts, he lived to see great good accomplished, largely by his own personal exertions.

But it was as a man of science that he was most widely known. He had devoted himself more especially to the study of the Mollusca. His collection of shells was one of the finest private collections extant, and his extensive knowledge and critical discrimination with reference to species and generic types, were un surpassed anywhere. He was ready at all times to give aid and guidance with respect to any difficulty of determination either in recent or fossil forms; and his familiar expositions of the structures and habits of his favourites, and the way in which he made clear and intelligible their functions and modes of life, must be fresh in the memories of many of our members. We all esteemed him highly as a naturalist and loved him as a man, and we should thank him for the noble legacy he has left to our University in his magnificent collection of shells. While engaged in the work of classification and arrangement of this collection, Dr. Carpenter was occupied in preparing notes for publication on special points, and in determining and naming collections which had been placed in his hands by societies, institutions and individuals, in all parts of America. His latest special work is an elaborate revision of the difficult group of the Chitons, illustrated with figures, executed by an eminent American artist, who was induced to visit Montreal for the purpose. This paper, left unficished at his death, will probably be published by the Smithsonian Institution.

The second name which it becomes me to mention here, is that of a man less known to many of you, but intimately known to me, and whom we have the right to claim as a Canadian geologist, and one of the highest standing-Charles Frederick Hartt, late Professor of Geology in Cornell University, and Director of the Geological Survey of Brazil, who died at Rio de Janeiro on the 19th of March last, at the early age of thirty-eight years. He was a native of Nova Scotia; and at Horton in that Province, where he studied at Acadia College, and while still a student, he became known to me as a diligent and successful collector of fossils of the Lower Carboniferous rocks. He subsequently engaged in educational work in St. John, and with his friend Mr. Matthew had the honour of fisst rendering intelligible the complicated geology of that district, and of discovering and almost exhausting its rich Devonian Flora and Cambrian Fauna. The collection and determination of the Cambrian fossils of what is now known as the Acadian group, and the excavation of the numerous fossil plants of the Devonian of the same district, constitute in my judgment two of the most important advances ever made in the palæontology of Eastern America, and are even yet bearing fruit. It was my good fortune to be able to aid and encourage Mr. Hartt in these earlier efforts, to determine his Lower Carboniferous and Devonian plants, and to afford him in my 'Acadian Geology' a medium of publication for his Primordial Acting under my advice, Mr. Hartt, in order to perfect his knowledge of palæontology, entered the school at that time recently established by Agassiz at Cambridge. This led to his appointment to a chair of geology first at Vassar College and subsequently at Cornell, and also to his connection with Brazil, which began with his being attached in 1865 to the "Thayer Expedition" to that country under Prof. Agassiz. The magnificent opening for geological work in Brazil seems to have fascinated his mind, and I remember well the enthusiasm with which he wrote to me at a subsequent time of the almost identical fauna and flora of the Brazilian coal-measures with those he

had in earlier days explored in Nova Scotia. In 1870 he returned to that country with an expedition from Cornell, and in 1875 he was appointed to the direction of the Survey then instituted by the Brazilian government, having already had a semi-official connection with the government for about a year. In the three years in which he worked in connection with the Brazilian government, he had explored and mapped large districts of the country, had accumulated a valuable geological museum, and had prepared the MS. of voluminous reports which he was about to publish at the time of his death. It is to be hoped that some worthy successor may still give them to the world.

In his character Hartt was, like our friend Carpenter, an amiable, exemplary, benevolent and christian man, and I have known few of our younger men of science who gave greater promise of brilliant success.

His rapid advancement to high and important positions shows that science is not without its advantages as a profession, and may perhaps serve to encourage others to devote themselves to similar pursuits, however such ardour may be checked by the remembrance of his early death. But it is better to live well and to good purpose than merely to live long.

Another member of this Society removed by a too early death, Dr. John Bell, deserves more than a passing notice. Taken away at the early age of thirty-three years, he had already achieved no small professional reputation, and had done good scientific work. He took the degree of B.A. in Queen's College, Kingston, in I862, and that of M.A. in 1865. He graduated in medicine in McGill University in 1866, and in the same year took his degree of M.D. at Queen's College. After graduating he spent about a year in the army hospitals of the United States, in the vicinity of Louisville, Kentucky, and obtained the highest testimonials for his ability, industry and efficiency. He commenced practice in Montreal in 1868, and from his union of professional ability with all the highest feelings of a christian gentleman, and with all the tenderness of a sympathising heart, earned for himself not only the confidence but the love of a large and increasing number of patients. Though well informed in geology, zoology. and physical science, his favourite scientific pursuit was botany, and in this he had made large collections, and had become a reliable authority. He collected in the country around Kingston, on the Ottawa, at Owen Sound, in the Manitoulin Islands,

in Gaspe and the west coast of Newfoundland, and lists of some of these collections were published in the Reports of the Geological Survey and the Canadian Naturalist. He contributed many rare and interesting plants to the collections of the University and of this Society. He entered with zeal into the project of collecting a subscription for the erection of a monument over the bones of the pioneer American botanist, Frederick Pursh, and at the time of his death had succeeded in securing nearly a sufficient sum for the purpose. It is a sad coincidence that this subscription was commenced several years ago by another of our young botanists, the late Dr. Barnston, who also was removed by an early death.

Dr. Bell was a man of excellent gifts for scientific pursuits, and one whom we could have wished to give a larger amount of time to original research, but his noble and self-denying devotion to his high calling as a medical man, and especially to the relief of the poor and unfortunate, constitutes a higher claim to our regard than that which even brilliant scientific discoveries would have merited. I may add that Dr. Bell was always ready to aid our Society, and to give his valuable time to work in connection with our botanical collections.

Turning from the memory of the dead to the work of the living, I find that in all seventeen papers or communications on scientific subjects were brought under our notice in the past Session. Besides the reading of these papers, one evening was devoted to an exposition and illustration of the Telephone by Dr. Edwards and Mr. Murray; another to the exhibition of the collection of Canadian game formed by Dr. May for the Paris exhibition, and its explanation by Mr. Whiteaves and Mr. Marler, and still another to an exhibition of Microscopes and objects, for which we were specially indebted to Dr. Osler, Dr. McEachren, Mr. Ferrier, Mr. Muir, Mr. Murphy, and other microscopists. The arrangements for these meetings were made by our indefatigable Secretary, Dr. Baker Edwards, and they were all pleasant and successful.

Of the papers read the greater part were on geological subjects. Two eminent exceptions were that on the Locust in the North-West in 1876, by Dr. G. M. Dawson, and that on the Colorado Beetle by Mr. Caulfield. The former is the sequel to a series of papers on the same subject published in the *Naturalist*, and commenced when Mr. Dawson was geologist on the Boundary

Commission. On this occasion, as a private enterprise of his own, he issued circulars and blank forms to a great number of persons in the North-West, inviting replies, numbers of which were sent in from year to year. The result was the publication in our Journal of a series of papers which it is scarcely too much to say reach to all that is certainly known as to the locust plague and its remedies, and may probably be found in the sequel as important as the expensively obtained statistics now being collected by the United States Commission. I may add that not only have these reports been published in our Journal, but a large number of extra copies have been circulated throughout the West, without any expense to the country.

Mr. Caulfield's paper was an elaborate investigation of a plague which has reached nearer to ourselves. This paper has been published in one of our city newspapers, but deserves a much wider circulation. The time was when this Society was the subject of jeux d'esprit in the city press on the subject of "bug-hunting," but the Colorado beetle has vindicated the

claims of the bugs to some degree of respect.

Of the geological papers, the following deserve especial mention: - the communication of Mr. Selwyn on the calcareous pipe found at Three Rivers in Post-Pliocene clays, and referred to the action of a hot spring penetrating those clays in Post-That of Prof. Hind, in which he sought to Pliocene times. illustrate the effects of Arctic ice in producing ocean currents. That of Mr. Whiteaves on new Jurassic fossils from British Columbia, in which the evidence for the existence of Jurassic rocks in that country is for the first time fully discussed. That of Dr. G. M. Dawson on the Surface Geology of the Pacific slope of the Rocky Mountains. That of Dr. Harrington on the microscopic structure of igneous dykes traversing the Laurentian rocks, one of our first Canadian contributions to Microscopic Petrology. I pass over several minor contributions, and also papers of my own on fossils from different formations, and on the Earthquake of November 10th, 1877.

On the whole our Session may be said to have been a fruitful and agreeable one, and I feel confident that the members who have attended our meetings and have looked into our published proceedings, have derived both instruction and recreation from our work. I cannot however refrain from expressing regret that our meetings have not been more largely attended, and that so

few of our members have brought under our notice facts or specimens. Surely no more rational or pleasant way of spending an evening can be found than in listening to new facts on the natural history of our country, and in examining and discussing the interesting and often rare or new specimens by which they are illustrated; and it should be borne in mind that we do not expect long or elaborate papers, but are quite content to receive the simplest and shortest notes on any natural phenomena that may be observed, or on any natural facts, either of scientific interest or of practical utility. Our Sommerville Lectures are largely attended by the public, and it appears to me that many of our monthly meetings have been of quite as great interest even to those not deeply versed in science, and vastly more so to those who are. Scientific societies in a country like this are of slow growth, but surely after an existence of half a century, and after having held up the torch of science for that long time in this community, this Society should have acquired greater strength. In the present Session it has completed its fiftieth year, and I think that it is time its members should make greater efforts to revive and strengthen it, so that it may be able with some vigour and eclat to celebrate its jubilee.

The address of the President was followed by the Report of the Chairman of Council, Mr. G. L. Marler, as follows:

REPORT OF THE CHAIRMAN OF COUNCIL.

At the close of another Session your Council beg to submit the following résumé of proceedings during the past year.

There has been little of extraordinary moment to which to call the attention of the members, but it may be stated that the labours of the Society seem to have been better appreciated than in the past, and also that there has been a larger attendance at the Sommerville Lectures and more visitors to the Museum.

The usual field day was a success in point of numbers, about 109 persons having been present. The trip was a very enjoyable one, as the weather was bright and pleasant. The party went by rail to Lachine, thence by boat up the river St. Lawrence, past Ile Dorval to Ile Perrot, where the boat stopped for a couple of hours to enable the excursionists to gather botanical specimens. The steamer then proceeded up through the Lake of Two Mountains to Oka, at which place the stay was too short, there not being sufficient time left for the ascent of

Mount Calvary. As usual the receipts were scarcely sufficient to meet the expenses.

In order to carry out the recommendation of the Report of the Council of the previous year, concerning the appointment of a competent Scientific Curator to devote most of his time to the museum and library, Mr. F. B. Caulfield was engaged at a salary of \$200. Since his engagement he has been devoting himself to his work to the satisfaction of the Council.

Your Council have to report that thirty-two new members have been added to the Society, but they greatly regret the loss of Dr. Philip P. Carpenter and Dr. John Bell, to whose death the President has alluded in his address. In them the Society loses two of its most active members.

The papers read at the usual monthly meetings have received full attention in the President's address, and call for no further mention from your Council.

The Sommerville Lectures have been delivered as usual, and were highly appreciated by the members of your Society and the public, the attendance having been much larger than formerly. The subjects of the lectures were as follows:

- Feb. 7. On Insects, their Habits and Habitats: By the Rev. T. W. Fyles, illustrated by Microscopic Photographs taken and projected by Mr. Charles Baillie.
- 2. Feb. 14. On the Eye and its Mechanism. By Dr. Buller.
- 3. Feb. 21. On Glaciers, past and present, and the work they perform. By Dr. C. A. Wood.
- 4. Feb. 28. On the Ear and its Mechanism. By Dr. Proudfoot
- Mar. 7. On a visit to River de la Plata; its scenery, resources and local constitution. By Dr. Blackader.
- 6. Mar. 14. On Health. By Professor Bovey.

On the evenings of the lectures the museum was thrown open to the public, and was visited by about two thousand persons, in addition to one thousand visitors at other times during the year; a much larger attendance than there has ever been before. The greater portion of these were admitted to the museum free of charge.

The rooms have been rented during the year to several kindred societies, &c., and realized as rent the sum of \$600.

The vestibule of your building has also been greatly improved by closing the space on the left going in and the stairway. The Reports of the Scientific Curator, Mr. F. B. Caulfield, and of the Library Committee, were then read.

REPORT OF THE SCIENTIFIC CURATOR.

During the past year the donations to the museum have not been very numerous. A fine specimen of the Carolina Grey Squirrel, Sciurus Carolinensis, and six species of Canadian birds have been presented; also a specimen of the Snow Goose, Anser hyperboreous, and a fine pair of the common Gar Pike, Lepidosteus osseus, has been purchased.

The entomological collection has been re-arranged and classified, and measures have been taken to prevent injury from the larvæ of *Dermestes*, &c. The number of species in the local collection of Coleoptera has been largely increased by collections made and presented by Mr. Whiteaves and Mr. Passmore, and by duplicates from my own cabinet. The valuable series of beetles collected in British Columbia by Mr. Selwyn and Prof. McCoun, and determined by Dr. LeConte of Philadelphia, have also been labelled and pinned into their proper place in the cabinet.

The Diurnal Lepidoptera, Sphingidæ, and part of the Noctinidæ, have been classified and labelled, but owing to want of space the whole of the remaining families of smaller necturnal moths cannot be exhibited. The Orthoptera are also nearly all named, and along with a large series of Hymenoptera, Hemiptera, Neuroptera and Diptera, are ready for exhibition as soon as another cabinet can be provided.

In the last annual report of my predecessor, Mr. Whiteaves, it was stated that "although corrosive sublimate was mixed with the paste with which the plants are fastened to the papers, it has been recently noticed that a small beetle has been and is still making burrows through some of the fasciculi, and the matter requires immediate attention." On examining the herbarium, it was found that many of the plants had been attacked by the larva of a small beetle, Anobium foveatum. Every plant was separately examined and the grubs removed and destroyed. Camphor has been placed in the herbarium and strips of cotton velvet fastened on the edges of the doors, so as to make them fit as tightly as possible; and it is believed that as the plants were examined at the season when the insect was in the larval condition and easily detected, the herbarium has been thoroughly freed from them, and with a little care can be kept in good order.

Many of the plants, however, are old and worthless, and should be replaced by fresh specimens as soon as they can be obtained.

Some of the jars containing Fish and Reptiles have been refilled with alcohol, but a larger supply is needed, especially for the collection of marine invertibrates.

The cases containing the Mammalia, Birds, Fish and Reptiles need re-papering, as they are badly stained and discolored. The glass fronts of the cases should also be washed, and the floors throughout the museum more frequently scrubbed, as the dust which accumulates is very injurious to the specimens.

All donations to the museum and library have been recorded, and the circulars for the monthly meetings have been regularly addressed and posted.

F. B. CAULFIELD.

REPORT OF THE LIBRARY COMMITTEE.

The Library Committee have to report that although few meetings have been held during the year, the condition of the library has been considerably improved.

About twenty-five volumes of various scientific journals have been bound and are now on the shelves, while twenty-seven more have been arranged and are now in the hands of the binder.

A good deal has also been done in the way of collecting together the scattered numbers of some of the more important journals, transactions, &c., and a list of them has been prepared by Mr. Caulfield to show what numbers are in the library and what missing. The proportion of the latter is unfortunately large, and there are very few journals of which complete volumes can be made up for any number of consecutive years.

There are now about 1333 bound volumes in the library, classified by Mr. Caulfield as follows:—

Botany		-						96	vols.
Chemistry	-		-		-		-	37	66
Geology and Mineralogy	y	-		-		-		64	66
Natural History in Gen	eral		-				-	280	66
Philosophy and General	Sci	end	e	-		-		91	66
Voyages, Travels, &c.	-		-		-		-	50	66
Biography and History		-		-		-		44	66
Miscellaneous -	-		-		-		-	115	"
Periodicals, Reports of S	cien	tif	ic S	Soc	ieti	ies	&c.	-556	66
Total								1333	

The accompanying statement was then submitted by the Treasurer, Mr. E. E. Shelton:

Š	\$708.41 245.00 569.00	41540.91
NATURAL HISTORY SOCIETY OF MONTREAL, in account with E. E. Shelton, Treasurer.	By Balance in Treasurer's hands	9
Dr. THE NATURAL HISTORY SOCIETY OF MONTREA	To Cash paid Mr. Cauldfield's Salary " Mr. Passmore's " 400.00 " for attendance 8.00 " Mr. Foote, commission on collections. 11.50 " Gas Bills. 89.90 " Water. 89.90 " Gity Taxes. 116.40 Repairs and Petty Expenses. 103.03 " Repairs and Advertising. 113.10 To balance in Treasurer's hands. 282.97	LIABILITIES.

ONTREAL.	17th May, 1878 Youehers, &c. G. L. MARLER	W. Muir.	J. H. BRISSETTE,
 N	balance, Dawson Brothers. 175.00		

Mr. W. Muir moved, seconded by Mr. J. B. Goode, "that the reports now read be received, approved and printed in pamphlet form for distribution to members."

Moved by Mr. G. L. Marler, seconded by Mr. Shelton, "that the by-laws relating to the election of officers be suspended, and that Principal Dawson be re-elected President of the Society." Carried unanimously.

Moved by Mr. Marler, seconded by Dr. Harrington, "that Mr. E. E. Shelton be re-elected Treasurer." Carried unanimously.

Moved by Dr. Dawson, seconded by Mr. Joseph, "that Dr. Baker Edwards be re-elected Recording Secretary, and Mr. Frank W. Hicks Corresponding Secretary." Carried unanimously.

Moved by Dr. Edwards, seconded by Mr. Marler, "that Mr. F. B. Caulfield be re-elected Scientific Curator for the ensuing year." Carried unanimously.

Moved by Mr. Marler, seconded by Mr. J. H. Joseph, and carried, "that the Council be requested to make suitable arrangements for the Editorship of the Naturalist and report to the Society."

Messrs. J. B. Goode and Brissette having been appointed scrutineers, the following gentlemen were elected by ballot:

Vice-Presidents—Rev. A. DeSola, LL.D.; A. R. C. Selwyn F.R.S.; G. L. Marler, Esq.; Prof. P. J. Darey, M.A., B.C.L.; James Ferrier, Jr., Esq.; J. F. Whiteaves, Esq., F.G.S.; C. Robb, Esq.; Rev. Canon Baldwin; J. H. Joseph, Esq.

Council—W. Muir, Esq., J. H. Brissette, Esq., Dr. B. J. Harrington, J. B. Goode, Esq., Prof. R. Bell, Dr. Osler, R. W. McLachlan, Esq., Dr. D. McEachren, Dr. G. M. Dawson.

Library Committee—Dr. B. J. Harrington, Convener, Dr. McConnell, Mr. Joseph Bemrose, Mr. J. Fraser Torrance, Mr. Charles Baillie.

A vote of thanks to the retiring officers closed the proceedings.

The Recording Secretary announced that the Annual Excursion would take place on the 1st of June, to St. Jerome, and the usual prizes would be offered for the best field collections.

DONATIONS TO MUSEUM AND LIBRARY—SESSION 1877-78.

	SECH AND LIBRARY—SESSION 1877-78.			
From	TO THE MUSEUM.			
N. P. Leach, Esq.	Carolina Grey Squirrel, Sciurus Carolinens, White-throated Sparrow, Zonotrichia alb collis.			
٠	Red-winged Blackbird, Agelaius Phæniceus. Ptarmigan, Lagonus albus.			
J. C Stockwell, Esq.	White-bellied Swallow, Hirundo bicolor. Northern Phalarope, Phalaropus hyperboreus Caternillar of Morb.			
G. W. Stephens, Esq. J. F. Whiteaves, Esq.	Caterpillar of Moth, Samia Columbia. Three stuffed Ptarmigan, Lagopus albus. A series of the Colcoptera of the Island of			
Mr. Passmore.	Montreal. A series of Coleoptera & Lepidoptera of the Island of Montreal.			
Master Arthur Weir, and Master Frank Mitchell.	A number of Indian bones, dug up in a field between Peel and Metcalfe Streets, Montreal.			
By Purchase,	Snow Goose, Anser hyperboreus. Pair common Gar Pike, Lepidosteus osseus.			
	TO THE LIBRARY.			
The High Commisson of Brazilian National Ex- hibition.	Brazilian Biographical Annals, 3 vols.			
The Trustees of the British Museum.	List of the Lepidoptera Heterocera in the British Museum, Part 1. Catalogue of British Hymenoptera Part 1. Catalogue of Birds, Part 3. Catalogue of Fossil Reptiles of South Africa.			
	British Fossil Crustacea (list of). Gigantic Land Tortoises. Guide to the Departments of Natural History and Antiquities in the British Museum.			
J. M. LeMoine, Esq.	Tableau synoptique des Oiseaux du Canada Catalogue of Birds, Fishes, Reptiles, Woods &c., in the Museum of the Literary and			
A. H. Foord, Esq.	D'Orbigny's Palæontology, 2 vols. Quarterly Journal of Geological Society of			
J. F. Whiteaves, Esq. Principal Dawson.	London 3 vols. Owen's Palæontology, 2nd Edition. Acadian Geology, 3rd Edition.			