



# PROCEEDINGS

AT THE

## ANNUAL MEETING

OF THE

# NATURAL HISTORY SOCIETY

OF

MONTREAL,

FOR THE YEAR ENDING MAY, 1870:

WITH

A LIST OF THE OFFICERS, LIFE, ORDINARY, HONORARY AND CORRESPONDING MEMBERS AND ASSOCIATES OF THE SOCIETY.

#### MONTREAL:

Printed at the Gazette Steam Printing House, 171 St. James Street. 1870.







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### PROCEEDINGS.

The annual meeting of this Society was held at its rooms on the evening of May 18th, the Acting President, Rev. A. De Sola, LL.D., in the absence of Sir W. E. Logan, in the chair. Mr. J. F. Whiteaves, the Recording Secretary, read the minutes of the last annual meeting; after which the usual annual address was delivered as follows:—

In the notice calling this meeting, it was announced that there would be an address by the Acting President. I fear, however, that I shall have now to prove there would be more of courtesy than of justice in dignifying my few remarks, illustrative of the work done in the past year, with a title that has frequently, even if not invariably, conveyed on such an occasion the idea of a scientific treatise. When I had the honor of last filling the presidential chair, I called your attention to "some points of interest in the study of Natural History"; but this evening, I do not follow this course, for two reasons, which I trust you will regard as quite sufficient. The first is, that I-and I venture to add most others in my situation-would but little desire to give opportunity of contrast with what, had he been present, our learned President, Sir Wm. Logan, would have favored us. And the second is, that multifarious and urgent official and other duties would have prevented me, however I might have felt disposed to intrude in such a direction. In uniting with me, as I am sure you will, in regretting the absence of our President on this occasion, we may yet have the satisfaction of recalling the fact that on Sir William Logan's recent retirement from the active duties of Director of the Geological Survey, this Society, which in the past had done something to help Sir William in creating the Survey, availed itself of the occasion of his withdrawal to present him with its silver medal, accompanied with

resolutions expressive of the Society's desire-although it could not ad I appreciably to the many honors which Sir William had received, by presenting to him its medil-yet its earnest desire to place on record, not merely on its own behalf, but on that of il he students of natural science in Canada, its high estimation of the value of his services in creating, as well as directing, the Geological Survey of this country; in promoting the divelopment of its miner a resources; in stim lating and aiding the efforts of scientific institutions, and in extending throughout the world the name of Canadian science. The resolutions also express our high appreciation of Sir William's admirable personal qualities, our hope that he may be spared for many years to Canada and science, and that the relief from official cares may give him the opportunity to pursue to completion the researches in scientific geology in which he is now engaged. In the sentiments of these resolutions I am sure all who are here to night, but who were absent when they were offered, will full and cordially concur, and at the same time unite with me in felicitating the "Survey" and the cause of geological science, that Sir William's mantle should have fallen on so worthy a successor as Mr. Selwyn, whose laurels, already gathered as director of the Geological Survey in Victoria, will doubtless multiply and extend themselves in the new and larger field to which he has been called.

The proceedings to which I have just adverted will find record in the Society's organ, The Canadian Naturalist, and it may be proper that I should here say a few words respecting this publication, especially as I have not been editorially or otherwise connected with the volume just completed. This volume forms the fourth of the new series and the first of its publication as a quarterly, and I venture to say that we have much cause for gratification and pride at its appearance, especially when we look to the difficulties attendant upon its production. These difficulties are both of a financial and literary character—the various valuable articles consisting entirely of voluntary contributions—and it is to be feared that not all the members of this Society sufficiently realize or ponder these great difficulties. It must be a source of congratulation to the Editing Committee that they have been

enabled to publish the volume within the year-a feat not always accomplished either by the Naturalist, or by the publications of sister societies in the Dominion. We need but look at the varied and valuable contributions in this volume to be satisfied that it has not been surpassed by any before it. And what will be considered a very gratifying fact is, that the original articles of the Naturalist are now copied in extenso in some of the scientific journals of the Mother Country and the United States. Thus, not less than six of these articles of the last volume have been wholly reproduced in the London Scientific Opinion, to wit, two by Dr. Edwards, one by Dr. Hunt, one by Mr. Ritchie, and two Articles and the monthly proceedings of by Dr. Smallwood. this Society are also copied in Nature and other periodicals. This important testimony to the value of the book must needs prove especially gratifying to those engaged in this labor of love, and should stimulate members to extend to the journal a more general and earnest support.

I would ask leave to bring before you here a list of the original papers read by members during the past year, some of which appeared in the *Naturalist* and reappeared, as I have said, in English periodicals. These are in addition to the inter sting lectures given in the Sommerville course, which have been six in number, and which I will enumerate first:—

- 1. Feb., 10th. 1870. "Explorations in the Nipigon Country," by Professor R. Bell, C.E., F.G.S.
- 2. Feb. 17th. "Recent discoveries in Solar Physics, and the total eclipse of August 7th, 1869," by James Douglas, jr. President of the Literary and Historical Society, Quebec.
- 3. Feb 24th. "The Chemistry of Iron and Steel," by Dr. T. Sterry Hunt, F. R. S.
- 4. March 10th. "On Deep Sea Dredging," by Prinicpal Dawson, LL. D., F.R.S.
  - 5. March 17th. "On Gold," by Dr. G. P. Girdwood.
- 6. March 24th. "On Economic Mineral Depts s," by G. Broome, Esq., F.G.S.

I will notice and classify the papers read as follows:-

#### I. GEOLOGY.

Principal Dawson's paper on "some new Gaspé fossils," after giving a general sketch of the geology of the peninsula of Gaspé, adds some newly acquired information as to the fossil plants of the Devonian rocks of that locality, and records the occurrence in these beds of fossil fishes of the genus *Machairacanthus*, also of the genus *Cephalaspis*,—the first time this latter genus has been observed in America.

Mr. Billings has contributed two papers in the department of palceontology. In the first, he shows that the puzzling fossils called Scolithus and Arenicolites are not the burrows of marine worms, as was formerly supposed, but casts of sponges. In the other, he states that marine univalve molluses, of the genus Ophileta, occur in beds several thousand feet lower down in the geological series than had been hitherto recorded.

#### II. ZOOLOGY.

Mr. A. S. Ritchie has brought before the Society three suggestive papers in this department of Natural History. In the first, the history of the introduction of the white cabbage butterfly, from Europe to the immediate vicinity of this city, is given. A careful description follows of the species in its three stages, with its peculiar habits, and suggestions are offered as to the best means to be adopted to check the ravages of the caterpillar of this species in our fields and gardens. The second attempts to answer the difficult question: "Why are insects attracted to artificial light?" The third is an interesting account of the habits of some of our smaller fresh water fishes, reptiles, and crustaceans, as observed in the writer's own aquarium.

Professor R. Bell has contributed observations on the Zoology and Botany of the Nipigon country, a district rarely visited by the naturalist. It is to be regretted that when parties are sent by the Geological Survey to explore places of which little is known, that a Zoological and Botanical investigation of the region

in question should not, as in the United States, be made in addition to the Geological Survey. Professor Bell also read a paper on the intelligence of animals. It seems a task of no ordinary difficulty to define where animal instinct ends, and the reasoning power is clearly seen to commence.

The recent dredgings by Mr. Whiteaves in the Gulf of the St. Lawrence, have added many facts to our knowledge of the creatures which inhabit Canadian seas. The marine mollusca have been carefully monographed, and instead of 60 or 70 species, we now know of nearly 130, the number having been thus nearly doubled. The careful identification of the inhabitants of the deep sea, in addition to its Zoological importance, will do much to illustrate the conditions under which the Canadian post-tertiary deposits have been accumulated.

Dr. P. Carpenter has given a verbal account of the recent dredgings by Mr. McAndrew, in the Red Sea, those of Captain Pedersen in the Gulf of California and by Mr. Dall in Alaska.

#### III. GENERAL.

The peculiar appearances of the rose-coloured prominences of the Sun's chromosphere during the solar eclipse of last August, have been described in detail in a paper read by Dr. Smallwood. On that occasion I referred to the want of good astronomical instruments in the city, and now revert to it as a circumstance much to be deplored by those interested in the progress of physical science in our midst.

Besides the subjects already mentioned Dr. Carpenter favored the Society with two papers. The first on the Vital Statistics of Montreal for 1869; with special reference to the great disproportion in death rate between the French, the Irish, and the English portions of the population. And the second, on different modes or computing Sanitary Statistics, with special reference to the opinions lately published by Mr. Andrew A. Watt.

Although not issued under the immediate auspices of the Natural History Society, yet I may be permitted here to refer to a publication emanating from one, of whose valuable services to this

society and to education generally, we can never too highly or too gratefully speak; one who, with our President, shares largely the respect and applause of the scientific world—I need scarcely say I refer to Principal Dawson, whom we trust to see soon among us again, occupying the highest place in the directorship of this Institution, for its benefit, and our gratification. The issue of the text-book of Canadian Zoology during the past year, must be a matter of congratulation to all members of this Society. The want of such a volume has been long felt, and the name of Principal Dawson is in itself a sufficient guarantee of the able way in which the subject has been treated. Let us hopefully look forward to a new edition, in which further details respecting the vertebrata of Canada will be included.

The list of papers just recited may be fairly regarded as evincing the desire of members to carry out as fully as possible the objects of the Society in one direction; but they have not been idle in others. One of their efforts to advance the study of natural science in the past year, and which is most likely to be crowned with useful and beneficial results, was their determination to avail themselves of an offer made them by their esteemed curator, Mr. J. F. Whiteaves, to place his private collection of shells and fossils in the Society's museum, in such a way as to be accessible to students and visitors, on the very liberal conditions that the collection be kept separate—that the Society find cabinets, &c., for its reception, and insure the collection, Mr. Whiteaves himself undertaking to mount and label the specimens. In availing themselves of such an offer, and voting the amount required to carry out its conditions, the Society was merely doing what other Societies in the mother country have done before them, and in this way: Possessors of a large and valuable collection which they were unable or unwilling to part with envirely, and still desired that the votaries of science generally should benefit by, would offer to deposit, under certain restriction, their collection in the museum of a society such as ours, which not having present means to acquire a valuable collection, would only be too glad to avail themselves of such an offer, and thus the cause of science would become well served. Now, although Mr. Whiteaves deposits his

collection in this way, and retains the right of withdrawing it after notice be given to that effect, yet I am sure I do but echo the general opinion that the Society is greatly indebted to that gentleman for his liberal and considerate offer, and indulge the hope that ultimately both Mr. Whiteaves and the Society will find the way of securing his unusually valuable and varied collection as a permanent addendum to the Society's Museum.

Another of the members' efforts in the good cause calling for notice on this occasion, was the originating of the Montreal Microscopic Club. Although formed in 1868, this Club has not hitherto received the notice at our annual retrospects of work done, which I think it deserves. Founded for the promotion of microscopic knowledge among its members, by regular meetings for practical microscopic work, and for the interchange of ideas and experiences on microscopical subjects, it has done good and useful work at its fortnightly meetings, which are eminently of a social character, and are held during the winter season. I need scarcely say here how very acceptable we find the presence of our microscopic-brigade, with their costly, improved instruments and beautifully prepared specimens, at our annual conversazione, and how pleasant we regard the evidences of their useful investigations, not merely on those occasions, but in the pages of the Society's journal and in other directions. In England, such clubs have proved very useful and successful. The modus operandi is very simple, and is thus described by the honorary secretary of our Montreal organization. "The club appoints a secretary, who arranges for the meeting, and suggests a special subject for illustrations at each. The host for the evening is the president of the club; minutes are recorded and read; visitors introduced; miscellaneous business discussed and microscopic investigations proceeded with. At 10.30 p.m., the president announces the adjournment, the microscopes are returned to their cases, and a parting cup of coffee closes the seance." The chairman of the Council, in his report, will doubtless refer to the Society's more general social reunions, the field day at Belœil, and the annual conversazione, both of which were very successful. The latter occasion was distinguished by the presence of His Royal Highness

Prince Arthur, to whom the Society presented an address. It was cause of great regret to the Committee to feel that, while they could safely direct the special attention of the Prince to the museum, at the extent and arrangement of which, indeed, His Royal Highness expressed to me much gratification and approval, they felt more than ever, that the library might be considered as displaying evidence of apathy and neglect—evidences which it is earnestly hoped will soon give way to others of a more fitting

and gratifying character.

One of the most important measures contemplated by the Society outside its immediate sphere of action, during the past year, is the dredging of the Gulf and River St. Lawrence. Those who were privileged to hear Dr. Dawson's most interesting lecture on deep sea-dredging, delivered during the past winter's Sommerville course, will need no farther exposition of the importance for pursuing such investigation, as will certainly not those who have attentively read the proceedings of the last meeting of the British Association at Exeter. Professor Forbes had previously surmised as a result of his investigations in the Ægean and Mediterranean Seas, that life probably did not exist in the sea below 300 fathoms His views never received, however, anything like general acceptance with scientific men, and at that Exeter meeting, a most interesting letter was read from Professor W. Thompson on the successful dredging of H.M.S. "Porcupine," in 2,435 Professor Sars, in a communication on the distribution of animal life in the depths of the sea, has enumerated not less than 437 species; and as a result of an expedition originated by the British Government, who sent the "Lightning" to dredge in the sea between the Hebrides and the Faroe Islands, we learn -and especially from an account of the expedition, given by Dr. Collins, in the Transactions of the Royal Society—that there were found to be currents of different temperature running side by side. In one place the temperature of the surface was 54°, and at the bottom 48°, and in the other the surface was 54° and the bottom 38°. Dr. Collins considered that one was the back current of the water that had coursed from the tropics to the These and many other interesting facts which time will

not permit me to notice, however briefly, on this occasion, may be some warrant for the desire evinced by the Society to do its share of labour in this field, and would be sufficient apology, if any were needed, for the resolutions unanimously adopted by the Society in March last, which affirmed it to be important to the cause of science and conducive to the interests and reputation of this Dominion, that researches by dredging should be prosecuted in the Gulf and River St. Lawrence, in order to ascertain the character of marine life in the greater depths and at the confluence of the fresh and salt waters of the river. And as this Society and individual members thereof, have so far entered upon such researches as to prove their feasibility and importance, but have not the means of continuing them effectually, the Society was of opinion that aid should be afforded to such operations by the government, in the manner in which this has been done in Great Britain and other countries, especially by giving for a short time in summer, facilities on board a government vessel to a party to be furnished and fitted out by this Society, which would undertake to procure observers and scientific apparatus and make reports upon such results as might be obtained. A committee, consisting of Drs. Smallwood, P. P. Carpenter, and Messrs. E. Hartley and J. F. Whiteaves, was organized to correspond with the Dominion Government, through the Hon. the Minister of Marine, with the view of effecting the desired results, and Principal Dawson has been requested, while in London, to obtain information as to the best methods of making such subsidiary observations on the temperature, chemical quality, &c., of the water at great depths, as have been made by the recent dredging operations under the auspices of the British Government, and, if possible, to procure specimens of the necessary apparatus. I will only say further on this subject that the committee have already taken steps in the matter, which may be safely left in their hands for a successful issue, and should—which is by no means impossible—the Government decline to allow our investigators a free passage in one of their ordinary cruisers, it will then become the duty of this Society to decide whether they themselves will provide the necessary means for the investigations contemplated by the

resolutions, which would really not involve a very large expenditure.

I have already detained you so long, that I must leave for some other occasion a few minor topics on which I had proposed to say a few words. Permit me, before sitting down, to ask your earnest attention to the important matters referred to in the reports about to be read, and your cordial co-operation, not merely with reference to the details of those reports, but in all that can subserve the interests of the Natural History Society, and verify and realize its motto—Tandem fit surculus arbor.

The Chairman of the Council (Dr. J. Baker Edwards, F.C.S.,) then submitted the following:—

### REPORT OF THE COUNCIL, MAY, 1870.

In reviewing the scientific work of the past Session, your Council feel it especially due to the active members of the Society to recognize the valuable contributions placed on the Society's record, and which they believe will be found equal, both in value and general interest, to those of any preceding session.

Your Council have felt increasingly, of late years, the desirability of popularizing the proceedings of the Society as much as possible, so as to interest a larger number of members in the objects. To accomplish this they have established field meetings; invited ladies to join the Society as associate members; added to the attraction of the annual Conversaziones; secured more comfortable accommodation for their guests; and popularized the character of their scientific periodical, "The Canadian Naturalist."

They cannot but feel, however, that the response to their efforts has been but of a partial character, and much has yet to be done to establish that "entente cordiale"—that "corps d'esprit" amongst the members which actually prevails in European societies of a like nature.

It is also a matter of regret that a succession of our wealthy and influential citizens are retiring from the annual subscription

list, without placing their names upon the life members' roll, a course your Council would strongly recommend to those who desire to retire from active participation in the Society's affairs. A sufficient loss is felt by the Society even by such retirement; and the withdrawal of some fifteen members from active subscription to and interest in the work of the Soci ty to the roll of life membership, forms a serious episode in the history of the present year, as it too often follows that life members lose some of their interest in the practical working of a voluntary association.

A vigorous effort has been made during the past two years to extinguish the debt upon the building, and this effort has been attended with considerable success. The mortgage debt on the building amounts to \$2,600, and towards this \$1,630 have already been promised, and it behaves the earnest friends of the Society to raise the balance if possible during the present year. In the meantime it is absolutely necessary to pay some attention to the drainage of the building, which is now flooded in the winter, and to paint and whitewash the premises; and it may be necessary to devote some portion of this subscription to the temporary use of putting the premises in necessary repair. The Council, therefore, feel the necessity of a renewed effort towards the liquidation of this debt, and also to replace on the roll of annual subscribers the number of members who, from various causes, have retired therefrom.

Our losses have numbered thirty subscribers during the past session, whilst we have added only seven to the list. The number of lady associates we regret to say has not been extended. An appeal is therefore necessary to existing members to add to the ranks of the Society.

Theoretically, subscriptions are due in advance, in order to meet the current expenses of the year, but practically, members are apt to defer their payments, so that the income of the year becomes a debt instead of an asset. This practice is a source of embarrassment to the Treasurer, which your Council trusts will not become chronic.

Again, the "Naturalist" is a charge upon the Society of a grave character. In addition to the 100 copies purchased for the

members, the Society distributes, for the purpose of exchanges, about 70 copies gratuitously. It is quite necessary, therefore, that the subscription list should be free from arrears. At present 30 subscriptions only have been received out of a list of 85. The Council feel that it will be impossible for them to maintain the efficiency of this periodical, in which they take a literary pride, unless supported by the prompt discharge of those obligations which the subscribers have undertaken, and upon the good faith of which the Council have assumed the responsibility of its publication.

Three objects present themselves to your Council as most desirable to secure, and they commend their consideration to their successors, viz:

1st. The funding of the Somerville bequest, so as to apply the interest thereof to the extension and success of the Somerville lectures.

2ndly. The discharge of the debt on the building, so as to enable the Society to be rent free.

3rdly. The appropriation of the Government grant to the main tainance and increased efficiency of the "Canadian Naturalist" and to the extension of the museum.

In order to secure these objects, your Council desire to see the current expenses of the Society borne by the annual income by subscription, and to this end feel the necessity of a large accession to the list of members and associates.

Your Council have been called upon to relinguish the services of their faithful janitor and skilful taxidermist, Mr. W. Hunter, under the painful circumstances of failing health and of domestic bereavement; and it has been a matter of anxious consideration whether his valuable services can be replaced.

The retirement of Sir Wm. Logan from the direction of the Geological Survey, has deprived the Society of his valuable presence and aid in the Presidental Chair; but your Council desire to express their obligations and thanks to the Senior Vice-President, Dr. DeSola, who has so efficiently filled his place during the present session. In his able hands the Council have left the review of the ordinary business of the past session.

The extraordinary meetings, with which so much pleasure was combined with science, were the charming excursion to Belœil, on the 9th June, to the success of which Dr. T. Sterry Hunt so largely contributed; and the Conversazione of 9th March, when the Society had the honor of receiving H.R. H. Prince Arthur. It is to be regretted that, whilst great efforts were made upon these occasions to interest the members, the amount of their response did not accomplish a financial success. The excursion prize was awarded to Miss J. McIntosh, for a large collection of named species, and juvenile prizes were awarded to Master R. Dawson and G. T. Robinson. Very creditable gatherings were also made by Master R. Lewis and E. P. Peavey. Full reports of these agreeable re-unions will be found in the "Naturalist."

Your Council has accepted the offer of our esteemed Curator, Mr. Whiteaves, to deposit his valuable private collection of shells and fossils in the Museum of the Society, for the inspection of members and students, which will add greatly to the attraction of the Society's collection.

The Council, in retiring, desire to acknowledge the very valuable services of their active officers, who have carried through the business of the session.

J. Baker Edwards, Chairman.

After which, Mr. Whiteaves read the following:-

### REPORT OF THE SCIENTIFIC CURATOR.

In consequence of the protracted ill health of our taxidermist, Mr. Hunter, also, in some measure, from the want of funds, my attention, so far as the Museum has been concerned, has been almost exclusively devoted to the lower animals, and to the Society's collection of fossils. Consequently, not many new mammals or birds have been added during the past session. A fine example each of the Canadian Otter, from Gaspé, and of the White-Bellied Mouse, from Labrador, have been added to our series of mammals. Six weeks, during the past summer, were spent in careful dredging round the peninsula of Gaspé, and the

results obtained are of considerable interest and importance. So many specimens were obtained that the whole of the material has not yet been worked up. Commencing with the molluscs, 16 species, new to ('anada, one of which is new to science, were pro-This group of animals has been very closely studied; and where there were any doubts about the identification of species, the specimens have been sent to the best English authorities. An exhaustive monograph of the sea shells inhabiting the river and gulf of the St. Lawrence, has been published in the last volume of the "Canadian Naturalist." In it 118 marine shells and 5 naked molluses are described as inhabiting the seas of Canada, only about 65 species being previously recorded. dredging expeditions of 1867 and 1869 have just doubled the number of species previously known to occur in our waters. These Gaspé species are, in many instances (say 50 per cent. of the whole), conspecific with those discovered by Moller in Greenland, and described by him. Unfortunately, Moller's work on the shells of Greenland (published in Denmark) is very rare and out of print. Not having access to the work, my Gaspé shells have nevertheless been carefully compared with specimens in the British Museum and in the cabinets of Messrs. Jeffreys & Hanley, which had been named and distributed by Moller. The importance of such identifications will be apparent, not only to the student of Canadian zoology, but also to those interested in the study of Canadian post-pliocene fossils.

Twelve additional species of crustacea, mostly small species, were obtained in these dredgings, named species of each of which

will be found in their proper place in the museum.

The Canadian Marine Polyzoa have been submitted to a careful microscopical investigation, and the whole of the collection, including many recent additions, have been re-mounted and labelled. The recent receipt of an elaborate monograph of the recent Bryozoa of Scandinavia, by F. A. Smith, published by the Royal Society of Stockholm, will, however, necessitate a re-study of this group. The Foraminifera obtained in the recent dredgings have been also subjected to microscopical examination, and, so far, 22 species or varietal forms have been so far observed. It is

proposed to mount a series of the larger species for the collection, and a number of Canadian and exotic specimens have been put aside with that end in view. Materials are being collected for a paper on the distribution of the Marine Protozoa of the River and Gulf of the St. Lawrence which will embody some of the results of both Principal Dawson's and my own collections and study.

Several rare sponges and other marine animals, especially Hydrozoa, have been added to our fauna, but these have not yet been worked up. Duplicates of the rarer Canadian sea shells have been sent to well known collectors in England, in exchange for other specimens. In this way we have received a fine series of English cretaceous and crag fossils (about 80 species), and hope shortly to receive other interesting specimens which have been promised. The fossils above alluded to have been mounted and labelled-

I have concluded to place my own collection of recent shells and British Jurassic fossils, under certain restrictions, in the Society's Museum, so as to make it available for purposes of reference.

A large proportion of time during the past session has been devoted to the editing of the "Canadian Naturalist." Delays in the appearance of the journal have occurred more frequently than might be wished, this has been owing to the difficulty of getting sufficient original matter in time. It is hoped that the volume for the past year, notwithstanding some almost inevitable shortcomings, is, nevertheless, on the whole, creditable alike to the Society and to the Editing Committee. Attention has been given, as in former years, to the publication of abstracts of our proceedings in the public press, and in the "Naturalist." Copies of these reports have been punctually sent to the scientific journals in England, by whom they have been reprinted. In the library, as much work has been done as our limited means would allow; a few standard works have been added; some of our incomplete sets of periodicals have been completed and bound; and the two new microscopical journals, so far complete, have been added.

J. F. WHITEAVES, F.G.S., &c.

The following financial statement was submitted by the Treasurer, James Ferrier, jr.:—

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It was then moved by Dr. John Bell, seconded by E. E. Shelton, and unanimously resolved:

"That the reports just read be adopted, printed and distributed to the members."

The following resolution, having been moved by John Leeming and seconded by Dr. Smallwood, was carried by acclamation:

"That the thanks of this meeting and of the Natural History Society be presented to Rev. Dr. De Sola, acting President, for his able and interesting address, also to the officers of the Society for the past session, and especially to Mr. J. F. Whiteaves as Scientific Curator, and for the deposition of his valuable collection of shells and fossils in the Society's Museum under the very reasonable restrictions which he has placed thereunto."

The following gentlemen were elected officers for the session 1870-71, Messrs. Ritchie and Marler acting as scrutineers.

### OFFICERS FOR 1870-71.

President .- Principal Dawson L.L.D., F.R.S.

Vice-Presidents.—Dr. T. Sterry Hunt, F.R.S.: Rev. A. De Sola L.L.D.: Dr. P. P. Carpenter: E. Billings F.G.S.: C. Smallwood, M.D., L.L.D., D.C.L.: A. Selwyn: John Leeming: G. Barnston: Sir. W. E. Logan L.L.D., F.R.S.

Treasurer.—On motion of Dr. T. Sterry Hunt, seconded by Dr. Trenholme, James Ferrier Esq. Jun. was re-elected by acclamation, the form of balloting being dispensed with.

Corresponding Secretary.—Prof. P. J. Darey M.A., B.C.L.
Curator and Recording Secretary.—J. F. Whiteaves F.G.S., &c.
Council.—G. L. Marler: D. A. P. Watt: M. H. Sanborn:
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The library and membership committee of the past session were re-elected.

It was moved by Dr. T. Sterry Hunt, seconded by E. Hartley and duly resolved:

"That the meeting do now adjourn."

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Donors' Names.	Donations.
R. J. Fowler, Esq	Brittle Star, (Ophiura teres? Lyman) from Panama.
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Mrs. Demaray	Canadian Lynx, Lynx Canadensis.
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Major G. E. Bulger, F.L.S., F.R.&.S., &c	Lepcha Cups, from British Sikkim.  Incense Rods, and pot of the material used in making them.
	Sponge from Australia. Pot of Ambergris.  'Frankincense.
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	Report of the Minister of Public Instruction of the Province of Quebec for the year 1867 and in part for the year 1868.
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The Author	On the Chemical and Mineralogical Composition of the Dhurmsalla Meteoric Stone.  By Rev. S. Haughton, M.D., F.R.S., &c.
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