ROYAL ONTARIO MUSEUM
Toronto, Ontario

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MESSAGE FROM THE PRO TEM CHAIRPERSON

Now is a good time for us to develop a fellowship of people who are concerned with scientific collections and the proper preservation of all objects of nature. We work for different kinds of institutions; we work for different levels of government; and we work in different parts of the world with contrasting financial support. Most associations with such broad interests were organized and started almost a century ago before large government-funded institutions were created.

Communication is the ever-present problem that this Society will help. It will encourage companionship among people with diverse backgrounds and origins but with very similar practical problems. Collection managers and curators around the world need information from a wide variety of fields: taxonomy, computers, conservation, (hazardous) chemicals, supply sources, specimen deterioration, etc., etc. Interestingly enough, it is known that creative minds have (almost) always found stimulation for new ideas from those working in different fields of study. Curators of scientific collections have been divided and conquered for too long and we need an organization that we can call upon to stand up for us in carving out a niche in our complex society.

This Bulletin as a newsletter can bring useful information to scientific collections being stored in various parts of the world. Presently, most staff working with collections are limited to communication within their own institution. We need information from others working elsewhere in order to make our jobs easier and more efficient. One thing is certain, funding for this kind of work will decrease over the next decade or so and additional valuable collections will be threatened with deterioration and destruction. With present available technology it will be possible to save some of these and maintain them in an efficient manner. Let's organize now. We can decide whether to associate with another organization at a later time.

The first steps in creating this Society have been taken. A small group of Charter Members will set in place a group of officers and committee chairpersons. After that we will have a promotional campaign to increase membership. The Bulletin will be the main instrument of communication. The cost to join this Society will be about $15.00, depending upon production and mailing costs of the Bulletin. Most work for the Society will be on a volunteer basis.

The Organizing Committee for this Society consists of the following persons: Dan Faber, Senior Scientist, National Museum of Natural Sciences, Ottawa, Ontario (Chairperson); Shirley Albright, Assistant Curator of Science Collections and Exhibitions, New Jersey State Museum, Trenton, New Jersey; Dick
Laub, Curator of Geology, Buffalo Museum of Science, Buffalo, New York; Cesar Romero-Sierra, Professor of Anatomy, Queen's University, Kingston, Ontario; Hugh Smith, Curator of Mammology, Provincial Museum of Alberta, Edmonton, Alberta; Wynn Watson, Professor of Biology, Wilfrid Laurier University, Waterloo, Ontario; and Steve Williams, Collection Manager for Mammals, Carnegie Museum of Natural History, Pittsburgh, Pennsylvania.

The Organizing Committee will meet in November, 1985, for one day to discuss and make decisions on creating the Society. I have asked Cesar Romero-Sierra and Steve Williams, to join me as members of the pro tem Elections Committee. We will receive nominations in November by Charter Members and develop a slate of names which will then be voted on in December, 1985, by the Charter Members. These democratically-elected officers will hold office for one year, 1 January, 1986 to 1 January 1987. If at that time there is enough support from the members, the term can be extended for another year. Au contraire, if at that time there is not enough support from the members, the idea can quietly go into hibernation.

Now is the time to volunteer some of your time and ideas—help us with a survey, a literature search, a book review, a collection description, or something else that will be useful to your colleagues. Give us some ideas on what to do or just get to know the names and personalities of some other people with similar interests and responsibilities. Write a letter to one of the members of the Organizing Committee and give them your views. If you've never personally joined or helped a professional society, I recommend you sign your name to the colored form attached to the inside of this Bulletin and let us know in which sessional committee you would like to work. Remember—the activities of this Society are dependent upon the members and not an appointed group of professionals.

I wish to personally acknowledge the support, financial and moral, from the National Museum of Natural Sciences. My wife, Joanne, has been invaluable in providing ideas and typing for this Bulletin. Darin Faber created the computer-drawn cover. Jack Parmelee provided me with a collection description on very short notice. Also, there would be no ideas about the Society without all the letters of interest that I received since June, 1985. Both Cesar Romero-Sierra and Steve Williams willingly gave me advice over the telephone whenever I began to flounder. Thank you all.

Dan Faber, National Museum of Natural Sciences

MISCELLANEOUS NEWS

MEETINGS

WORKSHOP ON CARE AND MAINTENANCE OF COLLECTIONS

The Second Workshop on Care and Maintenance of Natural History Collections was held on May 21 and 22, 1985 at the Royal Ontario Museum in Toronto, Ontario. International representation was achieved with 19 American and 2 British representatives among one hundred participants. Institutions such as the
Smithsonian Institute, American Museum of Natural History and the British Museum were represented in addition to numerous Canadian institutions.

The term "Workshop" for this meeting is perhaps a misnomer. The participants were exposed to new techniques in a diversity of fields rather than learning classical procedures within rigid disciplines. This diversity was one of the great strengths of the workshop. The application of these techniques to other fields becomes an exciting exercise. Like most participants, I returned home with a notebook full of new techniques to try out. I consider it significant that those I found most interesting originated in the fields of palaeontology, geology, ichthyology, and anatomy. As a sourcebook for these new techniques, the Proceedings of the First Workshop (Syllogeus No. 44, 1983) has received worldwide attention. The published proceedings of the Second Workshop will doubtless be equally well received.

An open discussion centred on the lack of an appropriate place in which to publish developments of collections techniques. Discussion also was aired on the future of the workshop group. The participants demonstrated a high degree of morale and cooperativeness with a strong desire to formalize an association. Presently, we are awaiting word on our acceptance as a special interest group within the Canadian Museums Association.

Steve Halford, Simon Fraser University

WORKSHOP ON MANAGEMENT OF ZOOLOGICAL COLLECTIONS

The First International Workshop on Management of Zoological Collections was hosted by the Zoological Survey of India and Carnegie Museum of Natural History in Calcutta, India, between 19 and 25 January 1984. The theme of the workshop was Recent Mammal Collections in Tropical Environments. Over 40 papers were presented by participants from six countries on subjects of collection and preparation, processing, storage, regional case studies, museum conservation and management, and administrative considerations. Abstracts were printed and distributed at the workshop by the Zoological Survey of India. The presentations are scheduled to be published and distributed in the near future.

Steve Williams, Carnegie Museum of Natural History

CONFERENCE ON COLLECTION MANAGEMENT

An international conference on collection management in natural history is in the planning stages. The conference will be held at the Smithsonian Institution, probably in the summer of 1987. The program will be extensive and the meeting will probably last five days. If you are interested in putting your name on the mailing list and keeping up with its development, write Frederick J. Collier, Department of Paleobiology, Smithsonian Institution, Washington D.C., 20560.

Fred Collier, Smithsonian Institution

LITERATURE IN REVIEW

Science Software Quarterly, edited by Diana J. Gabaldon, Arizona State University Center for Environmental Studies, Tempe, AZ 85287, ISSN 0748-3112.
This new journal has been in publication for about a year. The fourth issue of its first volume came out in March of 1985 about nine months after issue one with the promise that time frames would shift so that each volume could be contained in a calendar year. With four issues upon which to base a review, it appears that Science Software Quarterly is off to a good start.

Each issue contains several categories of subject matter. The lead-off portion is always a section called "Articles". These papers, which are intended for a general audience, are between one and ten pages in length with four or five contributions per issue. Topics are very diverse, ranging from the application of computerization to a museum mammal collection to that of thermoregulatory research. Although these two papers would appear to be of interest to a small subset of the total audience, other topics such as "Programming with Pascal" will probably have wider appeal. This portion of the publication represents about a quarter of the total content of each issue.

"Features/Departments" found in each issue include one or two pages each under the following headings: New Products/Software in Development, Books in Brief, Wanted List, User's Groups, The Bug Report, and Database Profile. Under each subheading a number of subjects is addressed in the space of a few concise and informative paragraphs. In the columns called "Wanted List" and "The Bug Report" assistance is offered through contact with original programmers, other readers, and the publication staff. "Database Profiles" have included descriptions of programming used by NASA, The Endangered Species Program, Aquatic Sciences and Fisheries Abstracts, and The American Geological Institute, to name a few.

To date, more than half of each issue has been devoted to the categories of "Software Review" and a feature called "The Fleamarket". Each software review is accompanied by a ranked evaluation in which Documentation, Ease of Use, Performance, and Error Handling are rated either poor, fair, good, or excellent.

The Fleamarket devotes a column or more of space to software descriptions, specifications, availability, and pricing. This space is available as free advertising for any programming of scientific interest. Non-commercial programmers receive priority for publication. In the last two issues, "Recent References" and "Published Programs" have been added under this heading.

It is obvious by the time No. 3 and 4 were published, this journal had begun to attract a considerable amount of attention. The length of No. 1 was 80 pages without advertising. No. 4 had increased to 120 pages and included five pages of advertising at the end of the journal. Questions, comments, and contributions are being made by an increasingly diverse group of scientists ranging from experimental psychology and medicine to chemistry and soil science. This unfortunately narrows the treatment of any specific area of interest. For this reason, and the original individual subscription rate of $45.00, some people may view Science Software Quarterly as a very good publication for use as a library reference. Current student rates are $25.00 and library subscriptions are $98.00. However, it appears that a proposed lowering of the regular subscription rate is in the offing because subscribership is up. Society discounts of 30% are also being given to several groups and being offered to others.
Certainly the opportunity to interact with other computer users having similar interests, the ability to receive help to debug programs, and examine timely accounts of new publications and software will present a growing temptation to potential subscribers. Examination of the issues in volume one can't hurt the future of Science Software Quarterly either.

Suzanne McLaren, Carnegie Museum of Natural History

WHAT'S THAT COLLECTION?

In each issue of The SSC Bulletin it is planned there will be a descriptive account of a scientific collection. This account will be provided by YOU, the members of the Society. If you are working with or have knowledge about a scientific collection that is limited and definable and is or is perhaps about to become orphaned, then write to me about it and your account can be considered for a future issue of the Bulletin. The future of this column will depend upon YOUR contributions, so think about your collection and let me know if it can be written up in a similar or even a better fashion. I would be happy to have someone take on the responsibility of creating and carrying on this column in future issues. All you need is an ability to edit text and an interest in a variety of natural history collections. If collections are to be helped with extra funding, they need a W-5 accounting (what, where, when, who and why).

THE JOHN DEARENTSS MYCOLOGICAL COLLECTION

John Dearness (1852-1954) was a pioneer Canadian mycologist. He was born at Hamilton, Ontario; at age 4 years he moved with his parents to a farm about 20 miles northwest of London, Ontario. In and around London he spent his life as a teacher, scholar and self-taught mycologist. His teaching career began when he was 17 years old and advanced through principalships to become Public School Inspector of East Middlesex when only 22, a position he held for the next 25 years. On retirement in 1922, at age 70, he was principal of the London Normal School.

His interest in biology began in the 1880's and publication by himself and with others began in 1892 and continued to 1941. The mycological collection of John Dearness reflects his teaching association. Many of the specimen packets are old exam papers, scribbler pages and school board notices while other packets, nearly always of used paper, indicate his correspondence with mycological associates worldwide.

With his passing, at age 102, the Dearness Collection of fungi was given to the Montreal Botanic Garden; housing was then arranged in the National Mycological Herbarium, Ottawa, where a professional staff was charged with its curation. Specimen packets originally filed in cardboard shoe boxes are now held in wooden trays within steel cabinets but his 'system' is faithfully maintained. The collection contains 25,000+ specimens in numbered series within major taxonomic groups. They are accessed by means of a species card index which has been photo-reproduced in book form (10 volumes) to preserve the original. In general the specimens are in excellent condition, but some of the fleshy fungi have been discarded due to ravages of dermestids.

References.

Canadian mycologists presently continuing studies of fungi at the Biosystematics Research Institute include:

Don Barr (Phycomycetes)  Gordon Neish (Hyphomycetes)
John Bissett (Coelomycetes)  Jack Parmelee (Uredinales)
Mike Corlett (Ascomycetes)  Scott Redhead (Agaricales)
Yolande Dalpe (Ascomycetes)  Bob Shoemaker (Ascomycetes)
Jim Ginnns (Basidiomycetes)  Doug Saville (Uredinales)
Stan Hughes (Hyphomycetes)  

Jack Parmelee, Biosystematics Research Institute

JOB OPENING

The New Brunswick Museum has a one-year term position for an Assistant or Associate Curator in Paleontology. The job is scheduled to start in January, 1986. The job will include the organization, identification and cataloging of sizeable research collections of New Brunswick fossil material that has until recently been in storage (10,000 - 20,000 specimens). This is not a research position. Salary will be $22,000 - $24,000 depending upon qualifications. The successful candidate must have a BSc or preferably a MSc with a knowledge of Eastern Canadian paleontology and some curatorial experience.

Qualified applicants should send their resume and three references to me.

Donald F. McAlpine, The New Brunswick Museum

LETTERS TO EDITOR

Dear Editor,

While the idea of organizing a continent-wide society may seem intimidating, it may be an idea whose time has arrived. Natural history collections from both countries have been enhanced with specimens from each, and certainly our museums have participated in favorable exchanges of materials and personnel. Can this new group afford to affix itself to any political or geographic boundary, or should it assume some kind of neutrality above all that and exist for the pure sake of science and the preservation of natural history specimens for all peoples for all time?

I'm particularly happy that you have emphasized the variety of natural history collections (i.e. museums, universities, government agencies, consulting firms, etc.). Too often, each variant has established a clique of its own, complete with standards, techniques and organizations exclusive of others. We need to work together in order to preserve and better utilize the material at hand. For these reasons, I doubt any established society would be willing to be an umbrella for a group of such motley composition. Professional museum organizations, for example, would not welcome memberships from amateur collectors or consulting firms. The political abyss is just too great. However, depending upon the goals of this new group it might not be inconceivable to provide a session or auxiliary seminar at the national or regional meetings of these special interest groups.
As a member of the museum community, I have certain prejudices that would affect any vision I would have concerning goals for this society. Keeping that in mind, however, I would hope this organization would strive to:

a. provide a network for the exchange of collection management techniques;

b. encourage all collectors to prepare, and conserve their specimens and associated data to the best of their ability;

c. inform all collectors of the unique problems facing each interest group and offer suggestions to ward off potential specimen and data losses;

d. disseminate information for specimen and data collection, preparation, preservation and exhibition;

e. address the problem of collection dispersal and finding new repositories for unwanted material; and

f. maintain a hotline for missing collection objects (i.e., items lost in transit, collections subdivided and dispersed to multiple agencies, unrecovered loan material, etc.).

Finally, I have become increasingly disturbed by the chasm developing between researchers and collection managers. The view presented in a session of the 1984 annual A.A.M. meeting (Washington, D.C.) was that curators and assistant curators perform pure scientific research, and collection managers and related titles are technical positions unrelated to research efforts. In my opinion, that kind of statement is based upon misdirected ego and failure to recognize the contribution each title lends to a collection. The two do not exist in individual vacuums. Instead, each should complement the efforts of the other. It is becoming increasingly rare to find agencies who are not looking for subject area expertise from their collection managers. The two positions are essentially parallel in importance, but remain functionally divergent: the one conserves specimens and data — the other interprets what has been preserved. It is somewhat ironic that conservators of fine and decorative art objects are viewed in awe because they not only demonstrate a keen understanding of technical apparatuses but also an intimate knowledge of the piece they are working with. I'll close with a wish — that prejudices will be laid aside so that all of us can get to the business at hand.

Shirley Albright, New Jersey State Museum

Dear Editor,

I feel that the organization ought to concern itself with collections that have as their purpose the representation of the nature and diversity of the natural world (here including anthropological specimens exclusive of modern technology), and which have been assembled and organized with an eye to their scientific integrity (accurate data) and usefulness for research (though secondarily useful for exhibition and other educational purposes). I would exclude, on this basis, teaching collections such as those held by universities and secondary schools primarily for classroom and learning lab use, and tacitly, therefore, somewhat expendable.

I suggest that the organization recognize the diversity of member institutions in terms of their financial and manpower resources, and not pressure them into conformity with standards that may not be practical (such as
computerization of collections). Such standards may be properly proposed as worthy goals, and the organization would provide a service in informing its members of opportunities for grants, etc., by which these goals could be attained; hence the organization's main usefulness may be as an information and advice source, rather than as an organ for establishing and even enforcing standards beyond those generally accepted as basic to the profession.

Members ought to be encouraged to publish articles in the principal journals of the profession, such as "Curator" and "Explorer," and to recognize that in many cases, different audiences are reached by these different series.

A newsletter disseminating useful information (inexpensive source of acid-free labels, problems encountered with certain types of specimen trays, great new glues, recommended data to be provided on labels of various kinds of specimens, etc.) would be an important offering of the organization.

Richard Laub, Buffalo Museum of Science

Dear Editor,

I strongly encourage establishing an organization which supports the science of diatitology and other aspects of the science and technology of specimen preservation. Such an organization would be unique among the natural sciences because scientists as well as other workers tend to communicate and collaborate with colleagues within their own narrow field(s). Nationalistic views should not be stressed at this early stage.

There are two considerations that are important in creating such a society, i.e.:

1. which fields of study, i.e., taxidermy, anatomy, biology, chemistry, art conservation, etc., might be included; and
2. which kinds of institutions, i.e., museums, universities, etc., have persons interested in joining such a society. The objectives and goals of the society and the envisioned benefits for membership should be clearly stated.

A newsletter will be the most important element of communication and it should be made clear how often it comes out and what is to be included in it. All members should have an opportunity to say what is important to them in the newsletter.

Cesar Romero-Sierra, Queen's University

Dear Editor,

There are many concerns to be looked at with respect to museum collections and through such an organization a forum would be established whereby these concerns could be addressed. Some things such an organization could be involved in would be: the establishment of a directory of Natural History collections and the persons responsible for these collections, a directory of where supplies may be acquired that have Canadian distributors, improvements in caring for collections that are innovative. Such an organization might provide guidelines with respect to collecting "ethics"—whatever that term implies. In general I believe that such an organization is needed and can provide a vehicle whereby the numerous concerns that have a special natural history bias can be
addressed.

Should a better name be chosen? Possibly, but I can't think of a better one. I don't like the word "Society" but "Association" is not much better.

I also do not think such a group, as proposed here, needs to be under another established society, especially the Canadian Museums Association. I do not have much interest in the CMA as it is seldom concerned about such things as Natural History Collections. From my perspective the CMA is very much an "Old boys Club" even though there are probably as many women associated with it as there are men. An organization that is being proposed here would, I believe, be swamped if it became affiliated with the CMA.

Another event that such an organization could and should undertake is the organization and sponsorship of workshops or meetings on a regular basis. Much of the same as has been done with the two that have been held. Meetings such as these, held every two years, help to keep an organization viable and if a newsletter is established that also serves a very useful purpose in keeping the organization together.

Hugh Smith, Provincial Museum of Alberta

Dear Editor,

University collections of plants and animals appear to have two beginnings:

(a) the accumulation of material for teaching that grows in quantity and quality to have a value of its own,

(b) the accumulation of specialized research material that has a value of its own initially and the research ceases either because the research worker moves on or the research simply comes to an end.

I have been involved with two institutions where both have played a part. In either case the institution finds itself in possession of a valuable asset that almost invariably has the administration at a loss. Departmental administrators realize its presence and value and must fight in each budget for enough funds to maintain the collections' integrity. More administrators are less and less aware of either presence or value and are less inclined to see any substantial funds used for such matters.

If active research on the collections is in progress the collections are, for a time, visible, and are supported at least by the research workers and assistants. However, when the research activity ends and the collections become "orphans" there is great danger of valuable specimens and years of work disintegrating, primarily because maintenance is looked after by part-time help or by some disinterested designate. Even the basic curatorial work of cleaning can be neglected.

Such a problem becomes even more serious when a herbarium becomes listed in a world catalogue as an exchange source of material. I do not know whether there is such a thing as "delisting" or withdrawing from such a listing but it seems to me that such a possibility might become a reality if an institution failed to keep its collections in order. I suppose in one sense the problem is a
local one where curators must continually press the various levels of institutional government for substantial forms of tangible sympathy. Vast sums money are not essential (half-vast would be enough!) but some form of adequate space and a salary for an interested and keen curator are essential.

At the same time, if some organization existed that could establish minimum standards for museum collections at least in terms of recommendations from experienced workers, such an organization could lend considerable support to the isolated voices in the wilderness. I do not suppose such an organization would become an accrediting body—if such a thing were ever possible, but it would add moral persuasion to any argument for support. With such support I think small institutions might have a better chance to maintain museums they could be proud of instead of shoebox collections—albeit valuable—stuck off in some forgotten corner of the campus.

The other alternative, of course, is for an institution to relieve itself of collections that are no longer being used. If such collections contained known valuable material, they would find ready homes. But surely any institution that would sell part of itself in this way must have a very shortsighted administration. Additionally, this would serve no useful purpose because material has a habit of accumulating and collections continue to be a fact of life.

Here at Wilfrid Laurier we have a small museum and herbarium. The herbarium, listed in the world catalogue, has something over 10,000 accessions including the important Wellwood Collection of Perth County material. The Zoology Museum has a general collection of material representing the major classes in addition to a substantial collection of freshwater fishes and a large collection of Canadian and foreign molluscs.

At the present time research work is being conducted on the fishes and on the bryophyte section of the herbarium. The rest of the museum-herbarium collections are being minimally maintained. A small insect collection is being held but not actively worked with at the present time. I understand that there is a substantial accumulation of archaeological material in that department. Some of it is being actively worked on but there must be much in inactive storage. One can only hope that storage is adequate.

From our position here at Laurier it would be useful to have an organization from which we could get useful information, and to which we might, from time to time, contribute—and from which we could derive support of a broader kind. The meeting in Toronto was most helpful and I should like to see more, perhaps more frequently. If an existing organization serves these purposes then let us join or affiliate and save the trouble and expense of an administrative structure. However, if no organization exists from which we could get information as useful as that that came from the Toronto meeting, then let us by all means plunge ahead on our own and look to affiliate later if necessary.

Wynn Watson, Wilfrid Laurier University

Dear Editor,

I would prefer to see that such an organization be less restrictive to the groups of individuals that could provide valuable input. I believe the field is so desperately in need of further research and communication that it would be a retrogression to place restrictions on this organization based on nationalism, field of expertise, or similar criteria. Today this is a serious problem of many
related organizations. I believe you will have to agree that the history of the workshops, the implications of the proposal, and the tone of the formal discussion at the last workshop, had some nationalistic attitudes surfacing. Although I don't view the past as a problem, I feel that it could be a problem to the success of the organization if the attitude prevails, particularly if we try to encourage non-Canadians to join.

Along the same lines of thinking, I would like to see the organization be attractive to a broad spectrum of fields that would provide the needed members, their expertise, and an exchange of ideas. This would include the fields of exhibits, education, conservation, administration, and possibly others. As a Collection Manager I know many cases where the interactions with these related groups have been necessary and mutually beneficial. For instance, one of the largest problems in mammal collections is absorbing and caring for valuable (historically, scientifically, and commercial) mounted specimens taken off exhibit; also we are often involved with the problems of using teaching collections and/or research collections for educational purposes. In my own research, I would be working in a vacuum if I didn't have input from experts in museum conservation. Both of us are aware of the value of administration for financial and logistic support. It would be desirable for an organization, such as the one you are proposing, to have some interested administrators that have the power and position to do things we cannot do ourselves. At this point you may be wondering what would be unique about an organization based on the ideas I have proposed. This concept has one thing in common which is unique among other organizations—that is, they are all interested in the preservation of natural history (the focal point of natural history collections). The scope of "natural history" and emphasis of the organization can be outlined in the organization's constitution or bylaws.

Concerning the proposed newsletter, I believe it is a good idea for maintaining communication. It would be very useful if it could be put out bimonthly and serve as an efficient mechanism of posting jobs, grants, corporate advertisements (income source), recent publications, and general information. However, I do not see it as being a useful outlet for publishing research projects. For my own purposes I will prefer to use publishing sources and references that go through a review process. With that thought in mind, I would like to see the proposed organization produce a journal. At first it might be a biannual publication, but it should work toward being published quarterly. Assuming the membership is large enough and the journal provides broad fields of interests, such a journal should have sufficient subscribers and contributors.

With regard to the political body suggested, it is good to see that most disciplines are served. However, I would recommend also including a section for anthropology, because that discipline is most certainly a major component of most natural history museums and a part that maintains research collections. It may be desirable to give representatives of these sections a title of Director, and use the Chair positions for committees. At the workshop a representative from the computer field requested representation in the organization. It may be more useful to that group and the organization to have such multidisciplinary sections function as committees. This would be applicable to other multidisciplinary groups as well, such as education, exhibits, and conservation. In spite of what is decided, I feel there is a definite need for a few basic committees to assist with the development of the organization. These committees would be a Legislative Committee (for developing a constitution or bylaws), Program Committee (for planning meetings and special activities), Editorial Committee (for handling publications and acquiring sources of advertisements), and Membership
Committee (for advertising the organization to build membership).

After attending the workshop in Toronto, I found out that the participants from various institutions were not fully aware of the activities at others institutions.

Steve Williams, Carnegie Museum of Natural History

This following group of letters is from others, who want to contribute views on the creation of a society for natural history collections.

Dear Editor,

I am definitely in favor of the establishment of a natural history collections organization. My initial reaction is to see this organization as part of the CMA. A common complaint is that the CMA does little to represent the natural history side of museums. This might be a way to make ourselves known. Our newsletter could be included in or mailed out with Muse. I do, however, see disadvantages to this route. One would have to join the CMA in order to become part of the natural history group. As well, members might also be required to pay full CMA conference fees to attend our organization's meetings. Another disadvantage to organizing under the CMA, I've heard, is that the CMA does not always meet in a locale that has a natural history museum. I don't know how often that occurs. Do we need to meet on a yearly basis anyway?

The major function of the group should be to provide an opportunity for information exchange and the newsletter should be the main vehicle for that exchange. It could include such items as preparation, conservation and management techniques; book reviews; profiles of various collections; and information on upcoming conferences. Four or six times a year is probably a manageable frequency.

Margaret Ballantyne, Provincial Museum of Alberta

Dear Editor,

I wholeheartedly agree with your assessment of the need for communication of information on the care and management of Natural History collections. Over the years, I have been charged with the care of a variety of zoological collections and obtaining information on their care from publications and personal contacts has been both time consuming and difficult and, at times, contradictory. Having a zoological background, other in-house professionals to consult with, and a museum with some resources has been of only limited help at times so one can imagine the difficulties being faced by many natural history collections and keepers thereof. Having acted as a consultant on an 'orphaned' collection of birds under the care of an astronomer was very enlightening on this last point.

I would probably prefer that an organization such as you propose be made part of an already established group, namely the Association of Systematics Collections. To me they would go together like a hand and glove with the collections group benefiting from the established ASC (membership, publications, and other facets) and the ASC becoming more representative of the entire systematics collections field. The ASC Newsletter might be expanded to include material such as that published in the Curation Newsletter (of the American Society of Ichthyologists and Herpetologists) which would allow greater dissemination of the information.

Thank you for the opportunity to comment on your proposal. Irregardless of the direction it takes to get there, I feel that the destination is worthwhile.
and look forward to your newsletters.

Arthur R. Clark, Buffalo Museum of Science

Dear Editor,

Please consider and use this letter as the expression of my full support for your proposal and its five objectives. I particularly appreciate the fact that, within your fourth objective, entomology stands on its own. I do hope you are considering it in its broad sense in order to include acarology, while nematology would be under the invertebrate section.

I for one, having attended the 2nd workshop and realizing the immediate benefits and forthcoming ones I derived from it, am interested in seeing such an organization get established and I would certainly join it. It is therefore my present opinion, that a Canadian natural history collection organization would certainly be a step forward resolving some of these problems. Sincere thanks for your efforts in that direction.

Jean-Pierre R. LeBlanc, Nova Scotia Agricultural College

Dear Editor,

We have given your proposal considerable thought and have discussed it with the executive of the International Institute for Conservation - Canadian Group (IIC-CG). Basically we feel that there are two main problem areas in the conservation of natural history collections:

1) The lack of a base of knowledge which can be used to make educated decisions about how to care for natural history collections.

2) A lack of awareness both within but particularly outside the natural history community as to the problems within natural history collections and the need for solutions.

Other questions such as the best computer system or method of organizing the collections are fairly well worked out and are really only of secondary concern.

To respond to the first problem area, we would say that there is a real need for basic research into questions concerning the conservation of natural history collections and the dissemination of that information. We feel that this can best be done through membership in the ICOM Committee for Conservation, Natural History Working Group. Because natural history problems overlap to a considerable extent with those of Archaeology and Ethnology, closer communication with practising conservators and conservation scientists in these areas would lead to rapid advancement in our conservation knowledge. The strength of IIC-CG is the forum which it offers for specialists in many areas of conservation to exchange information and ideas. It could also provide a framework within which standards could be established for the conservation of natural history collections.

The second problem is a question of education and pressure. To accomplish this we feel that we need support from the highest level possible. People in natural history have always gone it alone and this is one of our biggest problems. We need the support of an organization like CMA and the only way to get that is to become part of CMA and force it to respond from within. The ultimate power resides in the boardrooms and the only way for natural history to get its share is to educate the public as to our worth. CMA can help.

Jerry Fitzgerald and Robert Wailer, National Museum of Natural Sciences
Dear Editor,

If your new organization is going to be successful, I think that there are several things that you should consider.

1) You will quickly need to move from a Newsletter to a refereed journal to hold your membership and give the organization a focus. You will need to have at least 500 members to start a journal and about 1000 members to be able to sustain a journal of 500 pages per year.

2) If you are going to get the necessary members, you will not be able to restrict the organization geographically. Canada does not have enough people in museums willing to sustain the organization. The U.S. can help primarily because of the large number of museum workers. However, I know that there is interest around the world in information about the care and maintenance of scientific collections. I am chairman of the International Commission for Mammalogical Collections, which was formed primarily to address collection maintenance concerns and that was the basis for the workshop that we held in Calcutta last year. Scientists and collection managers in Third World countries are starved for information about management technology. I think the goal of your organization should be to distribute information about collections as widely as possible geographically.

3) You should try to get anthropologists involved in this organization for at least two reasons. There are a considerable number of them, which will help obtain the number of members you will need. Second, they have a considerable amount of the technology, particularly in the area of conservation, that can be applied to other natural history collections. To this end, I would suggest a more inclusive name for your organization such as "Society for Scientific Museum Collections".

I believe that the focus of this Society should be the collections—those types of collections held by scientific museums. I believe the primary goal should be to advance knowledge about the care, maintenance, and management of scientific collections. However, I believe that the organization should go beyond this goal to explore how collections are used in research, education, and exhibition. I believe a heavy emphasis should be placed on the application of known conservation techniques to new collections and the development of new conservation techniques.

Hugh H. Genoways, Carnegie Museum of Natural History

Dear Editor,

I did not at first think the name for the organization particularly important. As many potential members will hear first of the Organization as a 'nomen nudum' it is imperative that the name clearly reflect our aims. The introduction to your proposal states the problem: 'there is an urgent need to establish a communication network between persons...'. Since the aim of the organization as I see it is to encourage grassroots communication among workers in the field, this emphasis should be reflected in the name. A 'society for natural history collections' like an 'association of systematics collections' suggests an emphasis on the collections themselves rather than on the workers and their developments. The use of 'Canadian' or 'International' in the title was discussed at the Workshop. While I agree that it may be some time before we can actively solicit international membership, I feel we would be doing both the organization and the science a great disservice by discouraging potential members with a restrictive title.

Since the greatest innovation which the organization potentially provides is the
exchange of information across traditional disciplinary boundaries, I am not
comfortable with the proposed executive structure, a structure which appears
to perpetuate the very insularity we are trying to avoid. However, I see the
organization, at least initially, being so diverse (and thus tenuous) as to make
a large and cohesive executive desirable.

For any new organization to be viable, it must offer some element of novelty
to attract and maintain a membership. While it is desirable, especially in the
formative stages, to have access to the resources of an established organiza­tion,
it is imperative that the aims of the parent organization do not eclipse
those of the new. Since the novelty of this organization stems from its grass­
roots involvement in innovative procedures in natural history, I am not at all
sure that either the CMA or ASC have the appropriate focus to act as parent
to us. There is a spontaneity and enthusiasm in our group which should not be
lost, as I fear it may if confined by the structure of a more conservative
organization.

The organization's activities must centre on the opening up of and maintain­ing
communication among workers in the field. As a starting point, we need
information on who, what and where our resources are. Of paramount
importance is the ongoing exchange of information and for this a regular pub­
lication, whether it be a mimeographed newsletter or bound journal, is essen­tial. The emphasis of this publication should be on technical papers and
abstracts relating to natural history collection maintenance.

Steve Halford, Simon Fraser University

Dear Editor,

As you can imagine, I found the Natural History Workshop with informa­tion
of preservation techniques, storage systems, cataloguing etc. most useful.
I wish we had had more access to all these sorts of information over the last
few years. It would certainly have saved specimens which were irretrievably
lost, both through physical decay of the specimens and loss because of poor
cataloguing and control measures. On this basis alone I think that the
establishment of a communication network via a society such as you propose
would be very valuable, especially to a small museum such as ours which needs
all the technical help it can get.

The question of whether or not it should be under the umbrella of another
established society, I presume you mean the CMA, is a thorny one. Quite
clearly this year's Canadian Museum's Annual Conference had little to offer
the Natural History Museums, with the possible exception of Alan Emery's
address. If there are other umbrella groups, I'm simply not familiar with them.
The various scientific societies seem too specialized to accommodate our
various interests. This leaves the CMA, which, if nothing else, does appear to
have the organizational apparatus to arrange space, transportation, etc.. If our
Society could continue to parasitize that apparatus without having to be full
members of a CMAC, I can see no objection to doing so; there could be some
benefits.

If the CMAC continues to be organized along such specialist lines, and is
not held in a city with a natural history museum, I agree with the comment
made during the discussion that there would be little advantage in associating
with the CMA. However, a Society for Natural History Collections may be
able to apply pressure on the CMA to organize a more balanced conference,
with more concurrent sessions devoted to technical problems associated with
conservation, as defined by museologists, display preparation, etc. The
Society may also be able to act as a lobby group to pressure the federal
government to close the gap between the funding levels of the Canada Council and the National Museums Corporation which was discussed during the dialogue on federal funding.

Beverly Horn, University of Manitoba

Dear Editor,

I would like to encourage you to go ahead with the newsletter and I suppose, in effect, the establishment of the 'Canadian Association of Natural History Collections' (or whatever it is to be called).

I was very sorry to see the split develop between those who wish to be associated formally with the CMA and those who feel an independent group would be more viable. While it is my feeling that the goal of any natural history collections group should be some sort of affiliation with the CMA, it is also true that an independent group would better serve the needs of those curating collections in Canada at the moment. My feeling is that what those attending the conference really want is a means of communication, i.e., a newsletter. We should be able to provide this for much less than the $35.00 a year CMA subscription. CMA will not provide a matrix that will hold a collections group together, only a newsletter can do that. What CMA can provide is a voice on the political scene and a higher profile in the museum community. What I think should be explored is associate or affiliate association with the CMA. If we have a strong membership (say 75-100) we can add weight to the CMA while the CMA will give us a platform to reach the wider museum community.

Let me throw a proposal on the table. I suggest that we establish an independent 'Canadian Association of Natural History Collections', that a newsletter of 8-15 pages be produced four time a year and that an ad hoc committee examine the various aspects of formal association with the CMA. At the next workshop (2 years hence?) association with the CMA can then be examined by the membership and a vote taken. This would give us time to develop a healthy organization and carefully examine the implications of belonging to CMA.

Don McAlpine, The New Brunswick Museum

Dear Editor,

By attending the paper sessions, I felt a clear indication that there is not enough interaction going on between our borders. There is quite a bit of interesting work being done in Canada about which we have limited awareness. It appears that the reverse may also be true. My strongest reaction, to both the idea of a new organization and the research that was discussed during the meetings, is that we've got to get together!

The Canadians must certainly be credited with taking a decided lead on studying many of the types of problems discussed at the workshop. To my knowledge, there is not a big concentration of people in the U.S. doing this type of work. However, the support and interest that such an organization could command by encouraging U.S. membership would certainly help to float a fledgeling organization. A larger membership base could allow you to support a professional publication which is sorely needed for natural history collections. You have my commitment to help this organization get off the ground.

Suzanne McLaren, Carnegie Museum of Natural History

Dear Editor,

I'm replying on behalf of Dave Baron and myself. We're both in favor of
seeing a society established that concerns itself with all aspects of natural history collections. We feel it would be an excellent outlet for exchange of information between curators and others whose work pertains to collections. A newsletter would be vital for this exchange of ideas.

The following list indicates areas that we would like to see covered:

1. new and improved techniques for collecting, preparing and preserving specimens,
2. computer applications for collections management,
3. information on hazardous chemicals,
4. outlets for purchase of equipment, and
5. joint purchasing of major equipment (where numerous institutions can combine orders to receive discount prices).

The title suggested for this organization is quite acceptable. We would like to see meetings held no oftener than every second year and held in different places across Canada. (I wouldn't even object to Jamaica!!).

Keith Roney and David Baron, Saskatchewan Museum of Natural History

Dear Editor,

Some sort of formal communication between keepers of natural history collections is certainly necessary. However, I have very strong reservations about trying to start an organization from scratch when we could accomplish the same goals by tying in with an existing organization or organizations.

Two needs became obvious at the Workshop. The first is of course the conservation of collections. The second, equally vital, is the need to raise the public consciousness to the need for preservation of natural history as well as human history materials. This is the only way that funding for collection maintenance is going to be made available. Starting up an organization takes a tremendous amount of energy and commitment from a large number of people if it is going to succeed. I would rather put that energy into joining existing organizations with similar goals. The CMA is our national political voice for all museum concerns. The IIC-CG is directly concerned with conservation. Both say they welcome natural history input. I feel we should join these groups and take advantage of their expertise and existing administrative structures.

Janet Waddington, Royal Ontario Museum

Dear Editor,

In response to your letter of 4 June soliciting comments on the organization of a Society for Natural History Collections (SNHC), I would first like to express my support for a name, such as SNHC, which encompasses all localities (Canada, United States, Europe) and disciplines (Education, Exhibits) which should desire to participate.

In regards to the actual organization of the society, I believe that 2 sections should be added. In addition to a Section on computers as was suggested at the Toronto business meeting, there should also be a Section of Anthropology as this discipline composes a major part of many museum collections and is an irreplaceable record of man’s past.

Finally, I do not feel that any person involved in active research would be interested in publishing in a society newsletter, therefore, I would be eager to see the society publish a journal dealing with the care, maintenance, and management of natural history collections. This might begin as an annual or biannual publication but could develop into a quarterly journal once the society
is on its feet.

Elizabeth Walsh, Carnegie Museum of Natural History

(I requested the Executive of the IIC-CG to provide us with information about their objectives, publications, etc. so that we could consider that organization as an umbrella group. Editor)

Dear Editor,

The IIC - Canadian Group is an independent scientific-educational association affiliated to the International Institute for Conservation. Its primary aim is to further the dissemination of knowledge concerning the conservation of Canada’s cultural heritage. This is done through the publications offered by the organization, through communication with regional groups and through an annual conference. Publications offered include the Newsletter, published quarterly and containing technical notes, notices of conferences and publications, and news from conservation laboratories in Canada and abroad; the Journal, published annually and containing refereed technical and scientific articles; and Abstracts of all papers presented at IIC-CG annual conferences. To anyone concerned with the conservation of natural history collections membership in IIC-CG offers opportunities to communicate regularly with others concerned about natural history conservation, either directly or through involvement in related fields such as archaeology, ethnology, and conservation science. For further information and/or membership applications contact either of us at: IIC-CG, Box 9195, Ottawa, K1G 3T9, Canada.

Rob Waller, Vice President and Jerry Fitzgerald, Executive Councillor, IIC-CG

SOCIETY BUSINESS

PROPOSED ORGANIZATIONAL STRUCTURE

The following organizational structure is proposed to the Charter Members for their consideration. It is essentially an organization guided by a small number of elected executive officers. The majority of work, ideas, and personal involvement comes voluntarily from members of the sessional committees. Each member has an opportunity to participate in the activities of one or more committees, where he or she can contribute ideas and/or talents. The important activities are controlled by committee chairpersons. Each committee should prepare a biennial report of its activities.

ELECTED OFFICERS

President
President-elect
Secretary
Secretary-elect

APPOINTED POSITIONS

Bulletin Editor
Treasurer

STANDING COMMITTEES

Archival
Ballot-counting
Conference
WHAT SHOULD THE NAME OF OUR ORGANIZATION BE?

The title of this proposed (evolving) organization is important in order to let its members possess a sense of identity and it is important to tell persons outside the Society what we do and what we stand for. However, our Society needs a mandate with a broad range of activities. Experience at the two workshops (Ottawa, 1981; Toronto, 1985) clearly demonstrated that an interdisciplinary approach produced effective communication more quickly than a multitude of persons working in solitude.

The previous two workshops utilized the title "Care & Maintenance of Natural History Collections". As a result of these experiences, I suggested- "The Canadian Society for Natural History Collections" (handout at the Toronto meeting). Now I believe that this Society needs persons from other countries, too. For example, persons working with scientific collections in developing countries are starving for information about collections management technology. These problems are international. Recently, Steve Williams suggested "Society for the Preservation of Natural History".

An organization at the University of Kansas is named "Association of Systematics Collections". Our Society should be broader in interest by taking into account systematics, educational, and display collections. Many of the technical problems are similar.

In 1984 a meeting was convened in Calcutta, India- "The First International Workshop on Management of Zoological Collections". Our Society should be broader-based by including botanical, geological and other kinds of collections.

As a result of discussions with other persons and numerous written comments to me from other institutions, I am bringing forward 1) "Society for Heritage and Scientific Collections" and 2) "Society for Scientific Collections". A final decision will be made by the Organizing Committee when they meet in
November. So if you have personal views on this, make them known to one or all members of the Organizing Committee.

Dan Faber, National Museum of Natural Sciences

PROPOSED BYLAWS

Section 1. NAME AND OBJECTIVES

1. The name of this organization shall be the Society for Scientific Collections, hereafter referred to as the Society.

2. The objectives of the Society shall be to:

   a. Provide for and maintain a cooperative association of persons who study, maintain, care for, teach, or are intensely interested in scientific and heritage collections.

   b. Determine the basic and unique requirements essential for collecting, fixing, preserving, storing and displaying the diverse kinds of scientific specimens which are displaying the physical, chemical and biological processes on earth; to disseminate this information to members of the Society, persons working in allied fields, public and private institutions, and the general public.

   c. Inventory numerous important scientific collections and disseminate information on their content, condition, location and curatorial staff.

   d. Publish a newsletter and encourage the convening of conferences, symposia, workshops and other meetings to facilitate the exchange of ideas and information.

   e. Encourage the publication of useful information on scientific and other heritage collection subjects in journals, bulletins, proceedings of conferences, and wherever such information is appropriate.

Section 2. MEMBERSHIP

1. Membership in the Society shall be open to any person or organization interested in the Society and furtherance of its objectives. Upon payment of Society dues these individuals and organizations will become Society members.

2. There will be two categories of membership, i.e. regular members and corporate members.

Section 3. OFFICERS

1. Elected officers of the Society shall be President, President-Elect, Secretary, and Secretary-Elect. The President-Elect and Secretary-Elect shall be elected for one-year terms beginning with the installation of new officers at the end of the Society’s annual business meeting. The Society President-Elect and Secretary-Elect will automatically succeed for two-year terms as President and Secretary respectively. The President shall
be ineligible for election to the office of President-Elect for three years after the expiration of his/her term of office.

2. Appointed officers of the Society shall be Treasurer and Editor of the Society. They shall be appointed by the President with the approval of the Executive Committee and shall serve renewable four-year terms or until discharged by a vote of three of the four elected officers.

3. Contingencies

a. In the event that a new officer has not been elected as scheduled, the current officer of the affected position shall maintain their position(s) until a successor is elected.

b. In the event of a vacated position, the Society Executive Committee shall appoint a qualified replacement for the unexpired term. If possible, the replacement shall be the runner-up for that position in the preceding election; however, no member may hold more than one office at any one time.

4. Officers shall serve without salary or other material compensation from the Society. Expenses may be paid from funds available to the Society when authorized by the Executive Committee.

Section 4. Duties of Officers

1. President

The President shall preside at business meetings of the Society, appoint all committees, except as provided for elsewhere in these Bylaws, and serve as Chairperson of the Executive Committee and at least as ex officio member on all other committees. Representing the Society he or she shall perform other duties and functions as authorized and necessary.

2. President-Elect

The President-Elect shall assist the President in carrying out his or her duties and prepare him or herself to assume that office in the following term. The President-Elect shall perform the duties of the President in the absence of the President.

3. Secretary

The Secretary shall record the minutes of any special meeting, serve as Secretary of the Executive Committee, and maintain a current list of the membership. He or she shall present a membership report at the annual business meeting of the Society.

4. Secretary-Elect

The Secretary-Elect shall assist the Secretary in carrying out his or her duties and prepare him or herself to assume that office during the following term. He or she shall perform the duties of the Secretary, insofar as is practical.
5. Treasurer

The Treasurer shall collect and be custodial to all funds and keep a record of receipts and disbursements. The Treasurer shall be allowed to disburse funds for all reasonable, normal operating costs of the newsletter. All other disbursements shall require consultation with the Executive Committee. He or she shall present a financial report at the annual business meeting. He or she shall provide summary copies of these financial reports for printing in the newsletter. The Treasurer shall submit records for audit at intervals as is consistent with the policies of the Society.

6. Editor

The Editor shall be responsible for selection and editing newsletter copy, layout, printing and distributing the Society newsletter in a timely fashion.

Section 5. Meetings

The Society shall hold one regular annual business meeting at a time and place determined by the Executive Committee. Special meetings may be called by the Executive Committee but require at least one month's notice by mail.

A quorum at a business meeting shall be 15% of the Society's active membership. The business of the Society can, at the Executive Committee's discretion, be voted on by mail ballot. Matters voted on, either during a Society meeting or by mail ballot, are decided by the majority stand of the members participating in the vote. In the event of a tie vote, there shall be a reballoting of the membership. If the Executive Committee finds this reballoting to be impractical they shall break the tie by a vote within the Executive Committee.

Section 6. Biannual Standing Committees

The members and chairpersons of the Biannual Standing Committees are appointed and discharged by the President. Duration of membership on a committee, unless otherwise specified herein or by the President, is not restricted with respect to time; however, periodic change is encouraged to maximize the input of ideas or approaches and promote broader member participation. The President shall be considered at least an ex officio member of each committee and shall be kept informed of committee activities. Each committee shall submit a report at the annual business meeting and at other times upon request by the Society President.

1. Archival Committee

The Archival Committee shall compile a file on correspondence, reports, etc. for the Society. The members of this committee shall request the files from the various officers and committee chairmen.

2. Ballot-Counting Committee

The Ballot-Counting Committee shall receive and tally all ballots. The chairman shall report election results at the Society's annual business meeting. No person on this committee may be a candidate for any office on the election which they are counting the ballots.
3. Conference Committee

The Conference Committee shall set the time and place for the Society's conference. The time and place must be approved by the Executive Committee. This Committee will also handle the program at the conference.

4. Executive Committee

The Executive Committee of the Section shall be responsible for directing the affairs of the Section between annual meetings. The Committee shall consist of the President, President-Elect, Secretary, Secretary-Elect and the immediate Past-President. The Bulletin Editor and Treasurer shall serve in non-voting ex officio capacity. The President, serving as the committee chairperson, may call for a meeting whenever at least three of the four committee members can meet to conduct business. Actions by the Executive Committee are decided by a majority consensus of the Committee.

5. Membership and Directory Committee

The Membership and Directory Committee will be responsible for advertising and obtaining members that are interested in our Society. This Committee is also responsible for developing and keeping up a directory of members.

6. Nominations Committee

The Nominations Committee shall be appointed by the President from names offered by the Executive Committee. This Committee shall serve to receive nominations offered by the membership and may solicit nominations if there are insufficient nominations for a particular office.

7. Publications Committee

The Publications Committee is responsible for evaluating and recommending publication outlets for our members. This committee will be responsible for developing a journal and other publications for our members.

8. Publicity and Liaison Committee

The Publicity and Liaison Committee is responsible for publicizing the activities of our Society in various newspapers, magazines and scientific publications. Also members of this committee will report to our Society various activities of other professional societies.

Section 7. Amendments to the Bylaws

The Bylaws of the Society may be amended by a two-thirds vote in favor of such an amendment by Society members voting via the annual mail ballot. Amendments may be placed on the ballot by recommendation of the Executive Committee or by a petition signed by at least 15 active members in good standing and submitted to the Executive Committee.

Section 8. Standing Rules

Procedures for implementing these Bylaws shall be provided for in the
Standing Rules for the Society. These Standing Rules may in no way conflict with or supersede the Bylaws. The Standing Rules shall provide protocols for procedures, define additional duties of officers of committees and the establishment of sessional committees. Amendments to the Standing Rules may be offered from the floor at business meetings or by letter to the Executive Committee and a simple majority of those voting shall determine acceptance.
CHARTER MEMBERS

Shirley Albright
New Jersey State Museum

Delise Alison
Redpath Museum

Catherine Baier
Royal Ontario Museum

Margaret Ballantyne
Provincial Museum of Alberta

David Baron
Sask. Museum of Natural History

Chris Bloome
Laurentian University

Luc Brouillet
Universite de Montreal

Marion Burgevin
Carnegie Museum of Nat. History

Mary Carmen
University of Iowa

Arthur Clark
Buffalo Museum of Science

Fred Collier
Smithsonian Institution

Merridy Cox
National Museums of Canada

Adele Crowder
Queen's University

Randy Currah
University of Alberta

Daniel Faber
Nat. Museum of Natural Sciences

Joanne Faber
National Museum of Man

Norma Feinberg
Amer. Museum of Natural History

Gerald Fitzgerald
Nat. Museum of Natural Sciences

Robert Foottit
Agriculture Canada

Judith Fournier
Nat. Museum of Natural Sciences

Peter Frank
Nat. Museum of Natural Sciences

Hugh Genoways
Carnegie Museum of Nat. History

Julia Golden
University of Iowa

Robert Grantham
Nova Scotia Museum

Paul Gratton
Nat. Museum of Natural Sciences

Steve Halford
Simon Fraser University

James Hanlan
Queen's University

Catharine Hawks
Smithsonian Institution

Richard Herd
Geological Survey of Canada

Beverly Horn
University of Manitoba

Richard Laub
Buffalo Museum of Science

Lyn Lawrence
Royal Botanical Gardens

J. Donna Le Blanc
Carnegie Museum of Nat. History

Jean-Pierre Le Blanc
Nova Scotia Agricul. College

Andre Levesque
Université Laval

Wayne Lyons
Queen's University
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