

Canadian Museum of Nature

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CANADIAN MUSEUM OF NATURE

ANNUAL REPORT 1999-00



CMN CORPORATE VALUES

honesty and integrity; respect for people and nature
the pursuit of excellence; continuous learning

MANDATE AND VISION

The mandate of the Canadian Museum of Nature (CMN) is "to increase, throughout Canada and internationally, interest in, knowledge of and appreciation and respect for the natural world". It fulfills this mandate "by establishing, maintaining and developing for research and posterity, a collection of natural history objects, with special but not exclusive reference to Canada, and by demonstrating the natural world, the knowledge derived from it and the understanding it represents".

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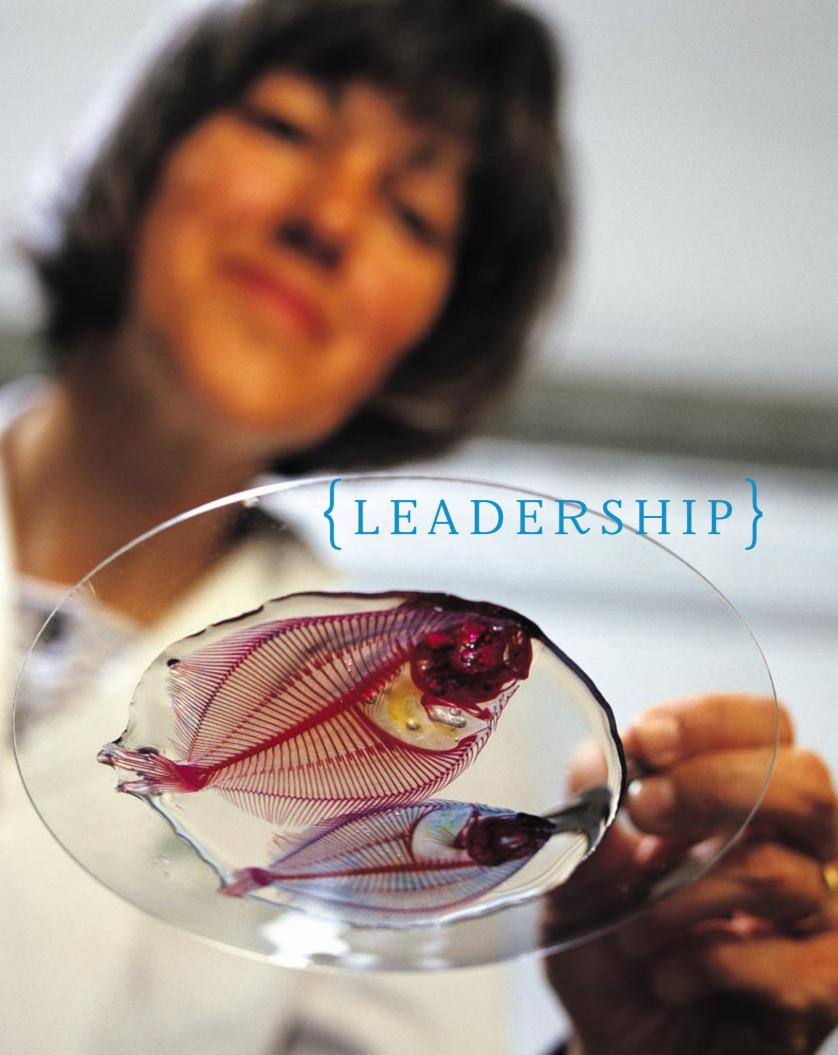


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In a rapidly changing world the CMN is striving to offer leadership as a modern, innovative natural history museum. We are drawing on our 150 years of nature research, collection and education, to provide Canadians with new ways to look at and address vital contemporary environmental challenges. Our science is our foundation.

And we're bringing this to bear on issues about which Canadians care.

ACTION: Knowing all the animals and plants in one river. It's part of a global goal under the 1992 International Convention on Biodiversity. Now our scientists are identifying – in a community-based project – the diversity of life in Ontario's Rideau River. It's knowledge that's essential to industry, government and our future. We're turning environmental goals into realities.





The CMN is moving beyond its walls to bring the diversity and majesty of Canada's natural environment to all Canadians. From Vancouver to Saint John's Nfld., to Iqualuit hundreds of thousands of adults and children are double-clicking on www.nature.ca, or tuning in to our co-produced educational TV programming to learn more about our country. It's shared knowledge like this that makes us Canadians.

And it's this national reach that truly makes the CMN Canada's natural history museum.

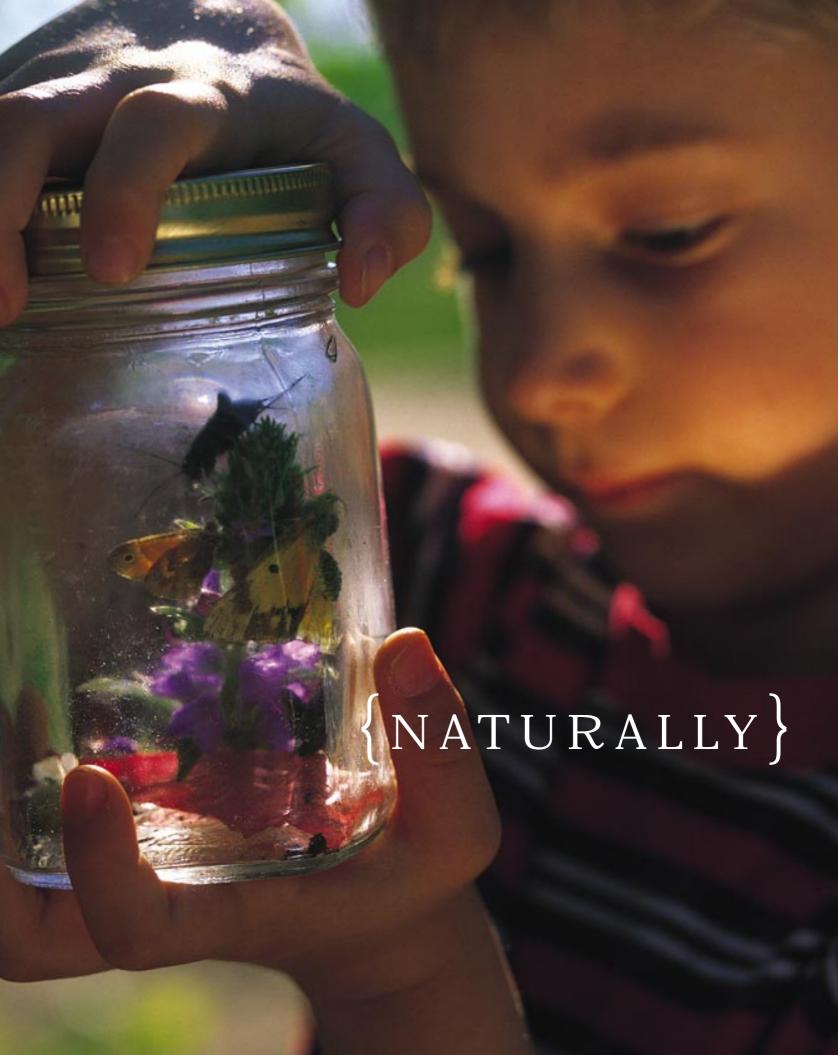
ACTION: Following the monarch butterfly on its migration to Mexico. The monarch's amazing migration is both poignant symbol of awesome natural strength and of the international challenges we face in protecting the natural world. It's why we organise annually a Canada-Mexico student exchange based on monarch conservation. We're training Canada's future scientific and environmental leaders, today.

We're offering dynamic new services and expertise to help Canadians better understand the natural world. Our scientists are leading eco-tours. Our educators are offering speedy on-line answers to nature-related questions. Our scientific collections are now more available to researchers across the country and internationally. It's all part of our commitment to being a relevant and timely primary source of information on the natural world – for scientists, policy makers and the public.

ACTION: A 21ST CENTURY MUSEUM IN A HERITAGE VICTORIAN "CASTLE". OUR VISITORS GET THE BEST OF PAST AND FUTURE. AT THE CMN WE'RE OFFERING VISITORS MODERN EXPERIENCES – FROM COMPUTER INTERACTIVES TO A LIVE RADIO BROADCAST – IN THE WONDERFUL HERITAGE AMBIENCE OF ONE OF OTTAWA'S PREMIER LANDMARKS.

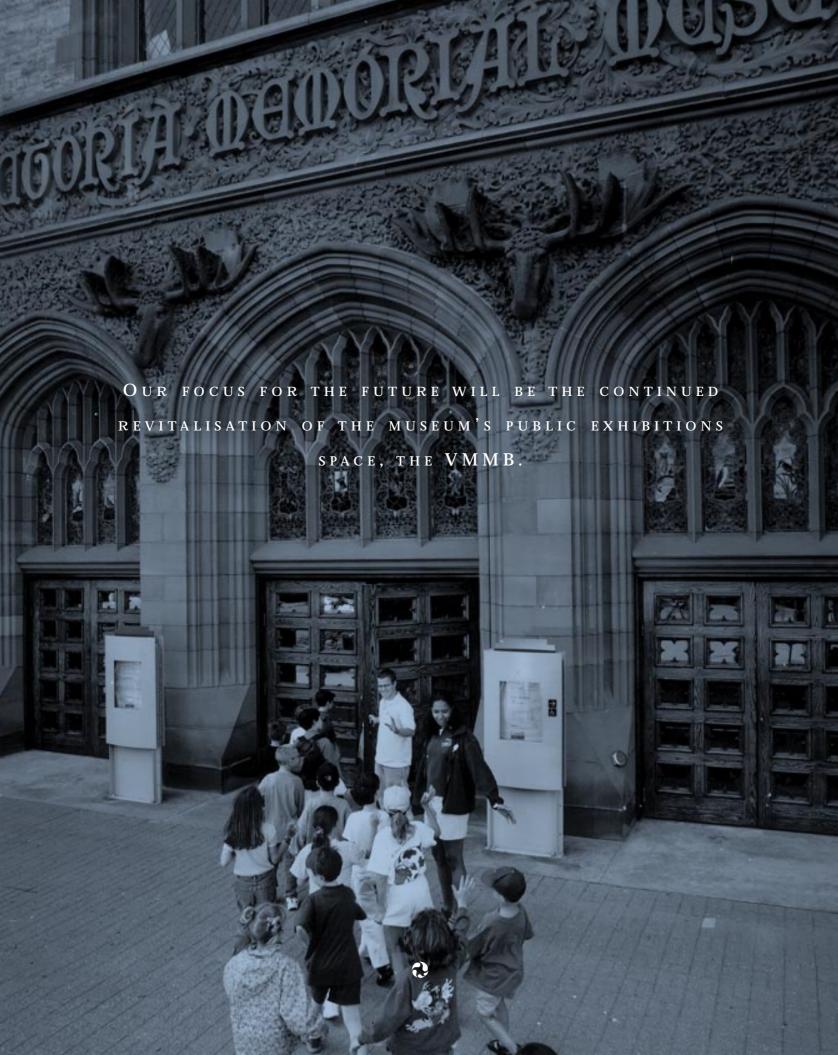
WE'RE OFFERING A DYNAMIC MUSEUM EXPERIENCE FOR THE 21ST CENTURY.





We continue to focus on sharing the wonders of the natural world with Canadians. It's something we do yearly with millions of Canadians. And the numbers are growing. Which is why we're offering new ways to enjoy and understand our natural heritage. Our first millennium exhibition, finders and keepers, showcased the amazing breadth of Canada's natural history collection. It's the kind of exhibition that makes us the museum where the fun comes first and the

ACTION: Life-sized, giant dinosaur models so real looking you hear them roar. They're being crafted now for the CMN's new dinosaur gallery. Inspired by Canadian's fascination with ancient 'terrible lizards', this ambitious project is based on the CMN's world-class dinosaur fossil collection. When it comes to nature, we offer Canadians the world.



CHAIRMAN'S REPORT

To the Honourable Sheila Copps, Minister of Canadian Heritage:

The Canadian Museum of Nature was an exciting place to work and to visit in 1999.

These dual facts were highlighted by the installation of a remarkable new public centrepiece in the Victoria Memorial Museum Building's (VMMB) atrium - two enormous life-size models of ancient flying reptiles, Pteranodons. Notably, the models were chosen and paid for by museum staff, trustees, volunteers and members. It was an act of pride and rededication to our joint cause of sharing the wonders of nature - past and present - with Canadians.

This past year the Board of Trustees' focus was on ensuring clear and effective governance. With this done, our focus for the future will be the continued revitalisation of the museum's public exhibitions space, the VMMB.

It is a physical renewal of a building and its exhibitions that will be built on the skills and experience of our greatest asset an energized team of dedicated staff and senior management.

It is my pleasure to submit this annual report of the Canadian Museum of Nature's activities for the 1999-00 fiscal year, accompanied by the Museum's financial statements, and the related Auditor General's report.



Frank Ling Chairman of the Board of Trustees

PRESIDENT'S REPORT



Joanne DiCosimo President and CEO

This past year Board and Staff of the Canadian Museum of Nature maintained a clear focus on achievement of the four objectives established in the 1998 Strategic Plan. This Annual Report outlines our work in this regard and serves as a summary of our progress in realizing the vision for the institution. I invite you to enjoy the detailed account offered in the pages which follow. I will use this opportunity to highlight our major steps forward from my perspective.

To increase national service and impact, CMN initiated the creation of a Special Interest Group in natural science collections and research, within the framework established by the Canadian Museums Association. The inaugural meeting took place at the CMA's annual conference in Toronto in May 1999. In the ensuing months, this national network attracted twenty-five members from museums, zoos and aquariums across Canada, established on-going electronic communication among members with the assistance of CHIN, elected officers and formulated by-laws to govern the group. Their first major project - the compilation of a data bank on museum-based natural sciences research - is well underway. CMN was able also to use the new network to invite partners to join our collaboration with NSERC to support post-graduate research in systematics at collections holding institutions.

CMN signed a new Memorandum of Cooperation with the International Development Research Centre to explore possible future alliances and projects in scientific research, environmental education and biodiversity conservation. In the National Capital Region, CMN expanded cooperative links on the Rideau River Biodiversity Project, now beginning its third year of operation. The project team worked in collaboration with Parks Canada and several cottage owners associations, and helped set up a community-based umbrella group for biodiversity action on the Rideau River to begin this spring.

We know that most Canadians will not have an opportunity to visit the Museum's public education centre in downtown Ottawa. Therefore one of the principal ways we **demonstrate the value** of the work done by CMN and share news about the natural world with millions of Canadians is through the mass media and

through our Web site. An updated graphic approach and regular additions of new postings helped the Web site expand its reach dramatically - by 254 percent over 1998-99 figures to a total of 1.3 million site visits. A media highlight this year was a CBC radio live broadcast for the "launch" of the Pteranodons; two models of an extinct flying reptile that now soar overhead in the Atrium of the Victoria Memorial Museum Building (VMMB). The creation of the Pteranodons was funded by Board, Staff, Volunteers and other supporters in a first-ever Museum Family Campaign.

A strong promotional programme drew the public's attention to the Museum and to the rich variety of programming offered. As a result, attendance at the VMMB increased for the third year in a row. A primary attraction was the first millennium exhibition, finders and keepers, which opened to public acclaim in June and which provided a look 'behind the scenes' at the collecting and research work of the institution. Plans for other millennium projects are well underway, as are plans for our first new signature gallery in a number of years - the new Fossil Gallery.

The work of our researchers continued to garner acclaim and invitations to participate as members of national and international research projects. Eight of CMN's research scientists now hold adjunct professorships at Canadian universities. Dr. Steve Cumbaa won a prestigeous award for Megaladon: the Prehistoric Shark from the Canadian Science Writers Association.

To ensure the effectiveness of our operating systems, staff concentrated on Y2K readiness. Their efforts were rewarded with a smooth transition to 2000. Upgrading of information systems, applications, hardware and links between the NHB and the VMMB all contributed to a more effective and efficient technology infrastructure for the Museum. To ensure the safety and wellbeing of the historic VMMB, a preventative maintenance programme was implemented and elevator modernization began. We also made further refinements to our planning and budgeting process, resulting in a more comprehensive operating plan with an enhanced level of detail and situated clearly within the longer term strategic plan.

As I reported last year, we have now finalized the plans for the renewal of the Victoria Memorial Museum Building.

Implementation of technical studies and the launch of the \$10 million Capital Campaign are contingent upon approval by Treasury Board of the funding necessary to address the health and safety infrastructure requirements of the VMMB. To increase self-generated revenue, the Development team secured major sponsors for the millennium exhibitions and prepared for the launch of a national membership programme while also continuing the preparations for the Capital Campaign.

To build a community of support for CMN, we continued our programme of luncheons and site tours for potential partners, campaign volunteers and prospective donors. Corporate, foundation, and individual gifts contributed significantly to CMN revenues this year and we realized an overall increase of 9% in these important areas.

It has been a year of considerable progress and we are proud of all that has been accomplished. We are looking forward to launching the renewal programme for the Victoria Memorial Museum Building next fiscal year.

In closing, I would like to express my personal thanks to Frank Ling, Chairman of CMN's Board, to the Trustees, to Colin Eades, to all the Staff, to the Associates and to the Volunteers for your hard work and significant contributions to CMN's service to Canada. It is a pleasure and a privilege to work with dedicated colleagues, and with a vital and interested community on matters of great importance and value to all Canadians.



CMN BOASTS 150 YEARS OF EXCELLENCE IN RESEARCH, COLLECTIONS AND PUBLIC EDUCATION. THIS YEAR CMN RENEWED ITS EMPHASIS ON MULTIDISCIPLINARY RESEARCH, PARTICULARLY RESEARCH THAT WILL ASSIST IN THE RESOLUTION OF CONTEMPORARY PROBLEMS.

DEFINING OUR ROLE

THE CANADIAN MUSEUM OF NATURE (CMN) IS A CROWN CORPORATION WITH A MANDATE TO "INCREASE THROUGHOUT CANADA AND INTERNATIONALLY, THE KNOWLEDGE, UNDERSTANDING, AND APPRECIATION OF, RESPECT FOR, AND INTE-REST IN THE NATURAL WORLD. BY MAINTAINING A COLLECTION OF NATURAL HISTORY OBJECTS FOR RESEARCH AND POSTERITY, AND BY DEMONSTRATING THE NATURAL WORLD".

We fulfilled this mandate by focusing on programs and products that inform and influence positively Canadian attitudes and behaviour toward nature. Staff efforts ensured that the Museum offered a dynamic interactive environment, bringing Canadians in touch with each other and with nature using new, high-tech connections. Continued expansion of the Web site audience increased our ability to provide nature education and access to the national natural history collection. CMN operates Canada's national museum of natural sciences located in one of Ottawa's most famous historical landmarks - the Victoria Memorial Museum Building (VMMB) - which attracted over 290,000 visitors in 1999-00, exceeding projections by 14%.

CMN boasts 150 years of excellence in research, collections and public education. This year CMN renewed its emphasis on multidisciplinary research, particularly research that will assist in the resolution of contemporary problems. CMN's collections number over 10 million specimens including plants, animals, minerals and fossils from Canada and other parts of the world, while our library and archives contain close to 55,000 books and other publications.

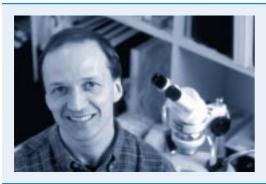
Teamwork is key to achieving both our annual and long-term goals. A Board of Trustees governs CMN and reports to Parliament through the Minister of Canadian Heritage. The President, the Vice-President and the Directors and Managers responsible for strategic operating areas ensure the effective operation of the Museum.

The smiling face of CMN - its Guest Services and Interpretation staff - is only one facet of the Museum. Behind the scenes is a topnotch staff of Research Scientists, Collection Specialists, Educators and Administrators, all of whom play important roles.

This year we used the results of earlier broad consultations with our stakeholder community to help define a vision of CMN's place in Canadian society. The three elements are:

- · To be a recognized national leader in the natural history and museum community;
- To be an educational institution with a presence across Canada:
- To be a viable and efficient organization.

Our progress in meeting the goals and objectives flowing from the new corporate vision is described in this Annual Report.



"MUSSELLING" IN

Dr. André Martel made an important discovery this year about a freshwater mussel in British Columbia. He has determined that Pyganodon kennerlyi requires a fish host - the unassuming prickly sculpin - to complete the larval part of its life cycle. This information is significant in conservation activities in freshwater habitats where clams and mussels are vulnerable to the many changes taking place.

ACHIEVING OUR GOALS

NATIONAL SERVICE AND IMPACT

Creating and maintaining national networks within the natural history community is essential to using resources for maximum impact. These networks enable CMN to share the knowledge developed by collection and research experts across Canada and to collaborate on public programming with other institutions.

This year CMN took a lead role in launching the Natural Science Collections and Research Special Interest Group at the Canadian Museums Association's annual meeting in Toronto. The main communication vehicle is a listsery provided by the Canadian Heritage Information Network (CHIN). A number of museums, zoos and aquariums have joined the Group, and terms of reference are being finalized. The research section of the Group worked with CHIN to develop an on-line research survey and database, and is now in the data gathering stage.

The Museum has also joined a network of over 200 Canadian museums by agreeing to contribute records from palynology and palæobotany to Artefacts Canada, a shared database of Canadian Museum Collections.

In February, CMN signed a new Memorandum of Cooperation with the International Development Research Centre to explore possible future alliances and projects in scientific research, environmental education and biodiversity conservation. CMN will host the first activity within this framework later this year: a Celebration of AQUAtox 2000, a network of young students working to assess water pollution through "hands-on" in-school experiments across Canada and abroad.

Under an agreement negotiated last year with the Biosphère in Montreal to collaborate on environmental education, CMN staff helped organize a one-day workshop, "Getting Young People to Take Action: a Challenge for the Ecowatch". The workshop, held in Varennes near Montreal, was attended by about 70 enthusiastic students, teachers and others.

Our partnership with the Natural Sciences and Engineering Research Council of Canada (NSERC), and seven other public sector partners, enabled two students to receive support for postgraduate research in systematics. Other ongoing partnerships included the Canada-Mexico Student Exchange Program cosponsored with Hamilton's Royal Botanical Gardens and

Montreal's Insectarium, the Canadian Biodiversity Information Infrastructure, a joint staffing project with the Bamfield Marine Station, the Canadian Centre for Biodiversity's secretariat services to the Canadian Committee of the IUCN, and the Lyman Fellowship at McGill University. Eight of the Museum's research scientists hold adjunct professorships at Canadian universities, including McGill University, University of Toronto, Trent University, University of Ottawa, Carleton University and University of Manitoba. These collaborations give CMN staff opportunities to share knowledge, to further develop professionally, and to mentor.

CMN encourages staff to take active roles in professional and affinity organizations. By so doing they build alliances, enhance the profile of the institution, and increase opportunities for information sharing. The primary organizations to which staff contributed are: Canadian Association of Professional Conservators; Society for the Preservation of Natural History Collections; Canadian Society of Zoologists; International Mineralogical Association; Federal Biosystematics Partnership; Biodiversity Science Board; Committee on the Status of Endangered Wildlife in Canada; PanArctic Flora Project; and, Canadian Museums Association.

Advancing the National Agenda

Within its mandate, CMN sought ways to further national goals. As part of our response to the 1999 Speech from the Throne, which emphasized youth, environment and communities, CMN gave priority to the development of a new Discovery Centre. Staff have formed a working group and are exploring potential partnerships with other federal agencies.

CMN chaired meetings of the Federal Biosystematics Partnership (FBP), to establish consensus for a Canadian position on this critical, basic scientific study. Members of the FBP have prepared working papers on systematics work in Canada. FBP is the lead group defining Canada's position in the newly formed Global Biodiversity Information Facility.

Museum staff were members of the steering committee for a national workshop in March for the Biota of Canada Information Network. The positive discussions at the meeting led to a proposal for resource allocations that will be presented to the group of five federal natural resource departments (Agriculture Agri-Foods Canada, Environment Canada, Fisheries and Oceans, Health Canada and Natural Resources Canada).

CMN staff continued to play an active role in the Committee on the Status of Endangered Wildlife in Canada (COSEWIC), including chairing several sub-committees and reviewing status reports. Federal legislation introduced in 1999 greatly strengthened the impact of COSEWIC assessments of species at risk in Canada.

The Museum welcomed a total of 14 interns under the final year of the original Federal Youth Internship Program. The participants gained valuable work experience and CMN and the

Dr. André Martel made an important discovery about a freshwater mussel in British Columbia. He has determined that Pyganodon kennerlyi requires a fish host – the unassuming prickly sculpin - to complete the larval part of its life cycle. This information is significant in conservation activities in freshwater habitats where clams and mussels are vulnerable to the many changes taking place.

Dr. Michel Poulin spent two and a half months in Antarctica, carrying out fieldwork as part of a team from France. His findings as a diatom and algæ expert (diatoms are microscopic plants that are extremely specialized, incredibly diverse, and provide ripe territory for new knowledge) are an important component of polar marine ecology, both in seawater and sea ice.



PTERANODON TRIUMPHANT

In the atrium of the VMMB, two males of the extinct flying reptile Pteranodon longiceps "flew" last May for the first time in millions of years. The life-sized sculptures soaring overhead were created by CMN palæontologists, who also recently installed a giant skeletal mount of the dinosaur Carnotaurus in the NHB to await its permanent home in the new Fossil Gallery.

public benefited from their labour and youthful enthusiasm. The 2000 Federal Budget established this as a permanent programme, and CMN is looking forward to future participation.

Research that Makes a Difference

During the past year, CMN researchers added to our understanding of the natural history of Canada and the world, and shared their findings through a wide range of published articles and papers (listed on page 28).

In its second year of operation, the Rideau River Biodiversity Project team focussed on monitoring mussels, fish, amphibians, reptiles, phytoplankton and water quality. They worked in collaboration with Parks Canada and several lake owners associations, and also organized community workshops to explore aquatic plants, molluscs and migratory birds. A working group established a community-based umbrella group for biodiversity action on the Rideau River beginning this spring.

The first six months of Dr. Hugh Danks' project on seasonal adaptations of insects yielded useful data. Work on the two-year joint research project continued with the aid of an NSERC grant.

The entire Rare Elements Project team contributed to the 3rd edition of the Encyclopedia of Minerals, a huge undertaking which covers all the minerals known to science. This team was instrumental in producing an electronic database of the extensive, valuable Pinch Mineral Collection.

From soaring Pteranodon sculptures in the VMMB to a giant skeletal mount of the dinosaur Carnotaurus temporarily in the NHB, CMN palæontologists helped resurrect the past. The major focus of team members was the planning, research and preparation for the new Fossil Gallery.

Beyond the National Capital Region (NCR), CMN palæontologists discovered, excavated, and studied fossil bones all across Canada - from Prince Rupert, B.C. in the west to Red Bay, Labrador in the east, and from the Snake River, Yukon in the north to the southern border of Saskatchewan. Internationally they worked in California, Michigan, South Dakota and Wyoming in the United States, and in Germany, Austria and Italy in Europe. News of their work reached the public through stories and interviews on Discovery Channel and local TV stations, a National Film Board television special, CBC and other national and local radio stations, several U.S. and Canadian newspapers, two international science news magazines, and several Web sites. More than a dozen scientific papers were published by CMN palæontologists in international journals and two biannual newsletters with an international circulation, Canadian Palæobiology and Canadian Zooarchæology, edited by Dr. Kathlyn Stewart and published by CMN. The Museum's efforts to popularize science were recognized by the Canadian Science Writers' Association, which gave its "Science in Society Journalism Award" to Dr. Steve Cumbaa and co-author Susan Hughes for the best children's book published in Canada in 1998, Megalodon: the Prehistoric Shark (Somerville House).

fig. 1 Publications

CMN Staff	1999-00	1998-99
Refereed Publications	51	37
Non-refereed Publications	18	21
Published or confidential reports	7	6
Other	24	31

This year CMN palæo researchers discovered new species of fossil fishes in 400 million year-old marine sediments in northern Yukon Territory, and collected spectacular specimens of fossil lizards intermediate between snakes and lizards in Europe. These were exciting finds, but we are especially proud of our latest discovery, newly-hired Research Scientist Dr. Jælyn Eberle, a specialist in early Palæogene mammals. She replaces Dr. Richard Harington, who retired in 1998.

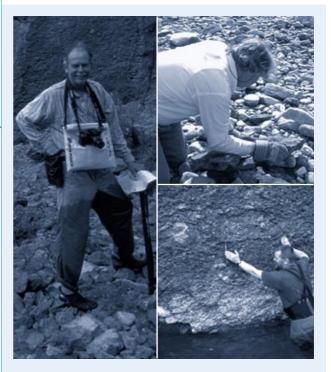
Throughout the year, researchers continued the essential work of the Collections Management and Conservation Research Project: to assess deterioration risks of museum specimens and determine how best to preserve them for future generations.

Museum without Walls

CMN's Web site (**www.nature.ca**) continued to expand, adding 54 new postings over the year. Audience reach expanded dramatically by 254 percent over 1998-99. Unique site visits are the most significant measure of audience reach and there were 1.3 million this year.

An updated graphic approach and regular additions of new postings and features contributed significantly to the continued growth in audience for the site, as did the concerted effort to register with search engines.

The Web team produced policies and procedures for content, new architecture and a new navigation system. Development work was done for an on-line sales catalogue and an on-line interactive membership activity (Dino Game). The team's creative energies ensured that **www.nature.ca** is appealing and accessible to the broadest possible national and international audience. They also established a solid technical base for future site expansion.



SNAKE RIVER, YUKON

This year CMN palæo researchers discovered new species of fossil fishes in the northern Yukon.

(clockwise from left) Dr. Steve Cumbaa, CMN, fresh from wading across a tributary of the Snake River on a hunt for fossil marine fishes; Dr. Hans-Peter Schultze, Museum für Naturkunde, Berlin, Germany, examines ancient fish fossils; Richard Day, CMN examines 380 million year-old fossil corals and sponges.

Keys to the Collection

Only a fraction of the Museum's 10 million specimens can be displayed at any given time. CMN continued efforts this year to make this unique national resource more available for public viewing and research use. A user-friendly brochure explaining how to access the collection was developed for broad distribution.

Collections staff conducted tours for public and school groups, visiting scientists, and Members of Parliament. The conversion of the first 400,000 records for the new Collections Information Management System (CIMS) is almost complete. This creates electronic access to these collection records, increasing their value to researchers and the public across Canada and around the world.

Through a visiting Fellowship Program, Collection and Research staff hosted six international experts at the Natural Heritage Building (NHB). Our state-of-the-art facility is an excellent base fort research and collections. These scientists added to our knowledge about Canada's national collection, worked with staff and provided seminars in their areas of expertise.

Public Value

The Art of Nature Festival in September gave the Museum the opportunity to review and strengthen links with arts/entertainment media. Arts media showed special interest in the upcoming Passionate Vision, an exhibition of photos by Dr. Roberta Bondar, and in Insect Wrecks mounted in January. There was very good coverage also of the Meet our Scientists series, the Rideau River Biodiversity Project, and the Return of the Bison story.

CBC Radio's national "Quirks and Quarks" programme featured CMN researcher Dr. Lynn Gillespie in a five-part series on plants, and Dr. Michæl Caldwell on potential scientific discoveries of the 21st century in a special millennium edition of the show.

Reaching a Wider Audience

CMN used print and multi-media to inform general audiences about natural history and to increase our reach. The television lecture series "It's In Our Nature", showcasing CMN researchers and Royal Canadian Geographical Society speakers (a co-production between CMN, RCGS and Rogers Ottawa) originally aired regionally and nationally last spring. It was rebroadcast several times for an estimated total viewing audience of four million. Filming was done for the second series of this well-received production.

The newsletter Nature Scene provided a bright new addition to CMN's community development activities. The first edition in December was distributed to 5,000 members, stakeholders and potential donors. It will be published several times a year.

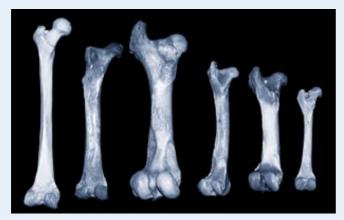
Dr. Irwin Brodo completed the manuscript of Lichens of North America. Yale University Press is preparing it for publication. Work continued on Hunting Lost Worlds, a book by Dr. Michæl Caldwell on the evolution of palæontological ideas. Contracts were signed with a new co-publisher, Kids Can Press for a book entitled Under Arctic Ice by Dr. Kathleen Conlan.

fig. 2 Audience Reach

	1999-00	1998-99	Variation %
Local Attendance (after-hour, open-hour, NHB, NCR)	348,396	316,440	+ 10.10%
High attendance venues	375,000	375,000	± 0.00%
Multi-media (TV) (1)	4,815,000	345,000	+ 1,295.65%
Unique Web site visits (2)	1,312,428	371,184	+ 253.58%
Travelling Exhibits	119,000	83,000	+ 43.37%
Purchase CMN products (3)	72,318	153,000	-52.73%
Number of school group visits (4)	982	1,197	- 17.96%
Number of participants in school group visits	40,441	48,200	- 16.10%
Number of people participating in guided tours	1,366	754	+ 81.17%
Number of people participating in workshops ⁽⁵⁾	9,495	10,503	- 9.60%

NOTES:

- (1) This figure is the result of four full broadcasts of the 12 "It's In Our Nature" series of lectures with the Royal Canadian Geographic Society on Rogers Television. In addition, rebroadcasts of earlier productions have contributed to this extensive national and local reach.
- (2) New and timely Web components combined with a fresh graphic approach and ongoing registration of meta-data with search engines has ensured that audiences are intrigued with content and can find the website easily.
- The decline is the result of no new publications being released and less interest in the CMN back list. In addition, our major co-publisher (Somerville House) has experienced financial difficulties and has not reported sales to the end of the fiscal year.
- The decrease is due in part to fewer visits from Quebec schools as a consequence of a teachers' strike during the first months of the 1999/00 school year
- The Quebec teachers' strike also had a negative impact on participation in Museum workshops. Moreover, fewer workshops were offered in 1999/00 as fewer volunteers were available to conduct them



WHOSE CLAVICLE IS THIS?

Police officers who encounter bones in the field do not have reference collections of bones to help them answer the question "Is this a human bone?" To aid their investigations, CMN researcher Darlene Balkwill is working with the Ontario Provincial Police and the Canadian Museum of Civilization to produce a bone identification guide, showing human bones side-by-side with common animal bones such as bear, sheep, deer and raccoon.

DEMONSTRATING PUBLIC VALUE

A strong VMMB promotional campaign made the public more aware of the Museum and the rich variety of programming it offers. We increased our market share of visitors during the summer months, the most popular time of year for museum attendance for both Ottawa residents and visitors. In fact, attendance at the VMMB this year exceeded targets in each quarter.

Advertising was designed to attract new audiences and repeat visitors. The summer tourist campaign featured finders and keepers, the first new millennium exhibit. In addition to print and radio, ads featuring "Our Greatest Hits Collection" were placed on busboards.

Special emphasis was given to tourism magazine listings, to reach Ottawa visitors. Following last year's very successful 60-second public service announcements in both French and English, we produced another for release in April 2000. Two new flyers were distributed, the first highlighting the Rentals & Events programme and the second RSVP behind-the-scenes tours at the NHB.

Exhibition Millennium Magic

The first millennium exhibition, finders and keepers, opened to public acclaim in June. It included special programming Why So Many Pickled Fish and Tales of Taxonomy, offered throughout the summer. The renewed Exploration Station formed part of the exhibit and provided increased opportunities for young collectors. New activities in the Exploration Station included the reference collections, an expanded resource centre and the Hands-on-Sand collection.

Two other substantial exhibitions will open at CMN in this millennium year. The photography exhibition, Passionate Vision,

featuring images from Canada's National Parks taken by astronaut Dr. Roberta Bondar, opens in June. Funding from Investors Group supported a suite of exhibition-related communications material. Negotiations with Canadian Geographic encouraged the magazine to include national parks as the theme in their 16th annual Great Canadian Geographic Contest. Readers send in photos taken in national or nature parks in Canada and winners receive exhibition-related prizes. The exhibit Animal Athletes, a tongue-in-cheek homage to Olympic year, will feature the amazing athletic capabilities of various animals. It will open in September.

In response to audience surveys, three new mini-exhibits -Minerals, Herbal Plants and Whales - were developed and will be added to the Museum's travelling exhibition programme in summer 2000. Monarca, the Museum's popular travelling exhibition on the monarch butterfly, was shown in Halifax and proved to be one of the most popular exhibitions the Nova Scotia Museum of Natural History has ever hosted. Monarca will travel to Montreal and to several U.S. destinations in 2000. CMN will then donate the exhibition to the Museo de Historia Natural de la Ciudad de Mexico.

Interpretive Programmes and Events

This year's broad range of programming for the general public at the VMMB was aimed at both individuals and schools. It included an activity station and guest presenters with live specimens for Easter and spring. Summer presentations featured Mammals Have Class! and Discovering Dinosaurs. A second year for the very popular Thursday Night Campfires attracted 1,040 participants.

In January, two weekends were devoted to Meet Our Scientists, with 21 CMN scientists teamed with nature interpreters to talk about CMN research and answer questions. Each weekend attracted over 1,800 visitors. A full two weeks of March Break programming around two themes - oceans and spring wildlife observation - started at the end of February and resulted in some of the days with the highest attendance of the year.

A new series of curriculum-based programmes was developed for Gatineau Park, including five trail programmes and four field adventures. These programmes are part of an ongoing partnership with the National Capital Commission and brochures about them were mailed to 800 schools at the end of February. The response was extremely enthusiastic, with 40 sessions booked by the end of March.

Serving the Community

CMN is an important community resource, not least because of the magnificent venue offered by the centrally located VMMB. The Museum partnered with community associations to offer the NCR Wildlife Festival, the Ottawa Regional Science Fair, the Great Animal Adventure, the Ottawa Valley Book Festival, the Great Canadian Geography Challenge, the Children's Festival, and National Aboriginal Day to cite a few examples.

Fossils Reign

The public can't get enough of fossils and the planned new Fossil Gallery will help to meet the insatiable demand. It will be the first new signature gallery since 1992. Staff installed a teaser display at the VMMB to build public anticipation and enthusiasm for the new gallery. Fabrication of fleshed-out dinosaur models is well underway and is being filmed for television and promotional purposes. The first major dinosaur specimen, the South American Carnotaurus, was mounted and displayed in the NHB lobby. Work began on a second major specimen, Amargasaurus.

Castle Walls and Hallowed Halls

Visitors to the Museum have enjoyed the castle-like architecture of the VMMB with its crenellated roof and grand staircases since its construction almost 90 years ago. Operating a modern museum inside a heritage building requires constant attention to safety issues, crowd management, and provision of amenities and services to ensure visitors a safe and comfortable experience.

After the March break, Guest Services organized a debriefing to establish ways to better serve the public on these high attendance days next year. A brown bag eating area for classes of students visiting the Museum was completed and is open for use. Renovation plans for improving the cafeteria infrastructure were approved and the necessary equipment ordered.

A preventative maintenance programme was put in place to extend the life cycle of the roof and prevent further water infiltration. New brass railings were installed on the Atrium stairs and elevator replacement began.

The VMMB Masterplan infrastructure renovation plan was integrated with the new gallery planning in the VMMB Masterplan and co-ordinated with fundraising plans. As soon as a decision is received on infrastructure funding the formal renewal programme will begin.



INSECT WRECKS

Art insect lovers turned out in droves for the opening of Insect Wrecks, where bug-meets-Volkwagen beetle. The giant sculptures are made from the cast-offs of the computer. communications and transport industries - car hoods, circuit boards, and televisions. Sculptor Gayle Hermick got the idea while scavenging auto wrecks for metal parts for her work: "I don't know why it made me think of bugs, but I wanted to get more directly at the idea of parasitic industries".



FINDERS AND KEEPERS

This first millennium exhibit opened to public acclaim, putting Canada's natural history collection in the spotlight. Over 400 individual specimens on display provide a glimpse into the enormous diversity, splendour, and surprises of our national nature collection. The specimens range in size from a full, mounted giraffe skeleton to the tiny fleas and lice that call us "home". Clam shells, collected prior to nuclear bomb testing, are now providing valuable information to understanding climate change.

Environmental Stewardship

As part of its role as custodian of the NHB and surrounding site, CMN made every effort to ensure that land assets were responsibly managed to preserve biological diversity. During the year, the Museum was transferred the responsibility of managing 36 hectares adjacent to the Aylmer site and is currently in the process of aquiring an eight hectare compensatory wetland site near the town of Osgoode. This enabled implementation of CMN's Environmental Stewardship Programme, developed by Museum stakeholders to provide guidance for research, land management practice and public education.

OPERATING SYSTEMS, HUMAN AND TECHNICAL

Infrastructure

The VMMB Masterplan was modified by amalgamating the schedules for infrastructure upgrading, temporary and new signature exhibitions, events and educational programmes, and the Capital Campaign. The infrastructure upgrades address chronic health and safety issues and are the subject of a \$43.7 million request to the Treasury Board. The launch of CMN's \$10 million Capital Campaign in the private sector is contingent upon this funding. Heritage and technical studies are underway to ensure the VMMB continues to operate as an excellent museum while maintaining the integrity of the building's heritage designation. Current studies are the VMMB Heritage Study and the Visitor Amenities Study.

CMN's transition to year 2000 went very smoothly from an Information Technology point of view. Extensive efforts over the past two years to evaluate and upgrade or replace non-compliant corporate systems, applications (Financial Management Information System, Payroll and Human Resources Information System, VMMB Ticketing System, etc.), network and desktop hardware paid off with a trouble free millennial rollover. These improvements contributed to a more effective and efficient technology infrastructure for the Museum.

Human Resources Infrastructure

The total number of professional development days for the year was 492 which represented an annual average of 24 hours of training per employee. This compared favourably with Conference Board statistics (1997) of other public sector organizations which averaged 28 hours. Twenty Collection staff participated in an "Emergency and Disaster Preparedness" workshop through the Canadian Conservation Institute.

The new Performance Management System was implemented. The Union-Management Classification Committee neared completion of the evaluation of benchmark positions for the new job evaluation plan. The new CMN Employee Recognition Programme was communicated to staff in January, and the first Long Service Awards Ceremony was held to recognize employees with 10 or more years of service.

A team of employees developed a Statement of Institutional Values, which was finalized after consultation across CMN. The four core values are: Honesty and Integrity; Respect for People and Nature; the Pursuit of Excellence; and Continuous Learning. The Institutional Values Committee developed an action plan to operationalize these values in the institution, to make them visible and to apply them in day-to-day work.

SELF-GENERATED REVENUE

Raising Awareness and Funds

A healthy development program is essential to CMN's ability to increase its public value. Work continued on several fronts to establish this fund-raising capacity. The Development Team prepared for the launch of the national phase of the membership programme, to build upon the success of the current year where active memberships grew from 473 to 781 translating to over 3,000 members. The President and the Chairman of the Board of Trustees hosted luncheons and tours at the VMMB throughout the year. These luncheons provided an opportunity to raise community awareness of the Canadian Museum of Nature and provided an opportunity to meet potential partners, campaign volunteers and prospective donors. The luncheons were followed by private tours of the NHB facility. We also hosted a special event at the NHB to unveil our latest dinosaur, the carnotaurus. Meetings were held with key community leaders from the private sector. These meetings provided guidance in leadership recruitment in preparation for the Capital Campaign.

New investments

New investments in CMN activities by the private sector included the following: Investors Group, Presenting Sponsor of the national travelling exhibition Passionate Vision pledged over \$300,000. Canadian Geographic contributed \$100,000 in media support in their magazine over the next three years. VIA Rail Canada provided 150 tickets, worth \$12,000, for students participating in the Canada/Mexico exchange.

Consulting Services

Scientific staff marketed their expertise in consulting and training. This included work for Canada Remote Sensing, courses at colleges and universities, identification of specimens, conservation assessments for museums and a workshop on assessing risks to collections. CMN, with its scientific expertise and in collaboration with various developing countries, offered the services required to implement the Convention on Biodiversity and training in biodiversity. The Museum participated as an international expert in developing monographs and national strategies for conservation of biodiversity, sustainable use of biological resources, and assessment of the general status of biodiversity in a country from a taxonomic and ecological standpoint.

Volunteers

CMN carried out its work with the support and assistance of 182 volunteers in all areas. Nature Nuts, the volunteer newsletter, was distributed regularly and information kits were sent to potential recruits. Training sessions and tours of the collection were arranged for those offering their valuable time to assist the Museum. Their contribution was especially significant to the Education, Research and Collections areas. In May, Joanne DiCosimo hosted the 22nd annual Volunteer Appreciation Luncheon. The event was a success with 158 guests attending.



INSECT HORDES ENTER MUSEUM

An exceptionally valuable donation of 18,588 scarab and weevil beetles (including a large number of type specimens) from Dr. Henry and Anne Howden is part of a collection that has taken over 50 years to assemble. Acquisition of the collection will make CMN the primary resource for consultation about Scarabæoidea and Curculionoidea. Many of the specimens are rare and irreplaceable. They are of great scientific value in documenting biodiversity in these areas and thus assessing human impact.

WORKING AS A TEAM

IN 1999-00, THE BOARD OF TRUSTEES MET FOUR TIMES AND HELD ONE CONFER-ENCE CALL. OVER 14 MEETINGS OF THE COMMITTEES OF THE BOARD WERE HELD, EITHER IN PERSON OR THROUGH CONFERENCE CALLS.

BOARD OF TRUSTEES

Frank Ling, Chair, Rockcliffe Park, Ontario

Louise Beaubien-Lepage, Vice-Chair, Outremont, Quebec

Louis Archambault, Boisbriand, Quebec

R. Kenneth Armstrong, O.M.C. Peterborough, Ontario

Patricia Beck, Saskatoon, Saskatchewan

Jane Dragon, Fort Smith, NWT

José Faubert, Mont-Royal, Quebec

Jordan Livingston, Hamilton, Ontario

Arthur W. May, O.C., St. John's, Newfoundland

Garry Parenteau, Fishing Lake, Alberta

Roy H. Piovesana, Thunder Bay, Ontario

STANDING COMMITTEES

Executive Committee

Mandate: The Executive Committee is responsible for monitoring the activities of the Board of Trustees and its Standing Committees, for conducting the President's annual performance review and for evaluating the effectiveness of the governance structure/system. The Executive Committee acts on behalf of the Board between meetings, in accordance with Board policy.

Audit and Finance Committee

Mandate: The Audit and Finance Committee is responsible for ensuring the Museum's compliance with legal, fiscal and audit requirements established for CMN by the Government of Canada, for recommending additional policies in these areas as appropriate, and for guiding and supporting CMN's efforts to develop a skilled, productive and effective workforce.

Community and Government Relations Committee

Mandate: The Community and Government Relations Committee is responsible for raising and sustaining in the national community a positive awareness of CMN, its services and its contributions, and for guiding and supporting CMN's efforts to generate revenue.

MANAGEMENT TEAM

Joanne DiCosimo, President, Chief Executive Officer **Colin Eades**, Vice-President, Chief Operating Officer, Corporate Secretary

Danielle Allard, Director, Human Resources Services

Joanne Charette, Manager, Communications Services

Linda Eagen, Director, Development and Fund-Raising Services

Gerald Fitzgerald, Director, Collections Services

Mark Graham, Director, Research Services

Mary Ellen Herbert, Manager, Community Services

Lynne Ladouceur, Director, Financial Management Services

Monty Reid, Manager, Exhibition Services

Greg Smith, Manager, Information Technology and

Library Services

Gerald Potoczny, Manager, Facilities Management Services

Bruce Williams, Manager, Information Services

STAFF Roger Demers Tyler Klein David Pilon Susan Aiken Mathieu Deshaies John Kubicek Jacques Plante Allen Alexander Francine Desmeules Evan Kuelz Gerald Potoczny Noel Alfonso Joanne Desnoyers-Shea Ron Kuelz Michel Poulin Danielle Allard Joanne DiCosimo Manon LaFrance Judith Price Robert Anderson Charles Diotte Mario Lacasse Gilles Proulx Marie-Claude Asselin Marc Diotte Ghislain Ladouceur Josée Quenneville Stuart Baatnes Lina Duguay Lynne Ladouceur Kathleen Quinn Tony Badmus Judy Redpath Catherine Dumouchel Linda Lafond Darlene Balkwill Nicole Dupuis Sylvie Laframboise Monty Reid Anne Marie Barter Guy Durand Roch Lahaie Claude Renaud Chantal Dussault Jennifer Lalonde Johanne Robin Lory Beaudoin Micheline Beaulieu-Bouchard Colin Eades Marie-Claire Lalonde Katja Rodriguez Julie Beaumont Linda Eagen Iannick Lamirande Jacky Rollin Alain Bélanger Scott Ercit Diane Landriault Leo Saccu Danièle Bélisle Diane Faucher Jodie Lane Mary Rose Saccu Nathalie Benoit Jonathan Ferrabee Hélène Lapointe Timothy Saint Jean Jacob Berkowitz Margaret Feuerstack Guy Larocque Suzanne Sauvé Florence Bernard Gerald Fitzgerald Doris Launier Kelly Scott Yannik Blier André Fortier Jean Lauriault Sonya Searle Nancy Boase Elizabeth Fortin Marie-Josée Lavergne Louis-René Sénéchal Lucille Fournier Anik Boileau Marcie Lawrence Michæl Shchepanek Agnes Bonk Peter Frank Julie Leclair Kieran Shepherd Jean-Marc Gagnon Judith Leclerc Randi Shulman Anne Marie Botman Ralph Brassard Nadia Gallant Martin Leclerc Lorna Sierolawski Anne Breau Robert Gault Diane Lemieux Julie Sigouin Irwin Brodo Gerben Gazendam Robert Leuenberger Gregory Smith Sherri Brown François Génier Stephanie MacDiarmid Samantha Somers Rachel Gervais Stéphane Bruneau Jacqueline Madill Joanne Sparks Irene Byrne Jeffrey Gibson Robert Marchand Michèle Steigerwald Michæl Caldwell Lynn Gillespie Sylvie Marcil Patrice Stevenson Susan Goods Dorothy Cameron André Martel Kathlyn Stewart Carol Campbell Danielle Gosselin Antoinette Martin Patricia Swan Nathalie Carter Michel Gosselin Richard Martin Susan Swan Joanne Charette Natalie Gould Elizabeth McCrea Ted Sypniewski Sylvain Charette Mark Graham Madalena Menezes Dahlia Tanasoiu Ioel Grice Manon Miller Carol Thiessen Stéphane Charlebois Agnès Chartrand Luisa Guglielmo Patrick Minns Lucille Thomas Wendi Cibula Thérèse Mitrow Stacey Tidman Patrick Haag Brian Coad Lætitia Habimana Marc Villeneuve Liane Monette Michèle Comtois Nathalie Haché Denise Morin-Groulx Sarah Voyer Joyce Wallace Janelle Conlan Paul Hamilton Brian Mullin Kathleen Conlan Ed Hendrycks Alison Murray Kevin Wallace Laurie Consaul Mary Ellen Herbert Donna Naughton Robert Waller Wilda Corcoran Shawn Hierlihy Jean François Neveu Michæl Wayne Charles Nezan Guy Cousineau Kurt Holmes James Wilkinson Jason Coyle Morag Hutcheson Barbara Njie Bruce Williams Marissa Croteau Heather Hutt Nicole Paquette Anne Winship Cécile Julien Louise Winter Stephen Cumbaa Risë Paquette Fiona Currie Katherine Julien Lyanne Payette Pak Wong Jacek Czapiewski Catherine Kempton Marie-Claire Payette Heidi Zoethout Darrell Daniels Davina Pearl Clayton Kennedy

> Barbora Pek Diane Picard

Michel Picard

Hugh Danks

Richard Day

Kim de Grandpré

Sean Kennedy

Andrée Keohane Mireille Khacho

COMMUNICATING RESEARCH RESULTS

CMN STAFF PUBLISHED 51 ARTICLES IN REFEREED JOURNALS, AND 18 IN NON-REFEREED PUBLICATIONS, AS WELL AS NUMEROUS OTHER PAPERS AND DOCUMENTS. A COMPLETE LIST FOLLOWS.

RESEARCH SERVICES AND COLLECTIONS SERVICES STAFF

Refereed Publications

- Aiken, S.G., Dallwitz, M.J., McJannet C.L., Gillespie, L.J., and Consaul, L.L. 1998. Saxifragaceæ of the Canadian Arctic Archipelago: a DELTA database for interactive identification and illustrated information retrieval. Canadian Journal of Botany, 76:2019-2035.
- Akester, R.J, and A.L. Martel. 2000. Shell shape, dysodont tooth morphology, and hinge-ligament thickness in the bay mussel, Mytilus trossulus, correlate with wave-exposure. Canadian Journal of Zoology, 78(2): 240-253.
- Anderson, R.S. 1999. Flowers and Insect Evolution. Technical Comments. Science, 283:143
- Anderson, R.S. 1999. A new species of Lignyodes dejean (subgenus Chionanthobius Pierce) from Costa Rica (Curculionidæ). The Coleopterists Bulletin, 53:183-185
- Anderson, R.S. 1999. New species of Sicoderus Vanin from the Virgin Islands (Coleoptera: Curculionidæ; Curculioninæ; Otidocephalini). Tjdschrift voor Entomologie, 141:129-135.
- Back, M.E., J.D. Grice, R.A. Gault, A.J. Criddle, and J.A. Mandarino. 1999. Walfordite, a new tellurite species, from the Wendy open pit, El Indio-Tambo mining property, Chile. Canadian Mineralogist, 37: 1261-1268.
- Barber, D.C., A. Dyke, C. Hilaire-Marcel, A.E. Jennings, J.T. Andrews, M.W. Kerwin, G. Bilodeau, R. McNeely, J. Southons, M.D. Morehead, and J.-M. Gagnon. 1999. Forcing of the cold event of 8,200 years ago by catastrophic drainage of Laurentide Lakes. Nature, 400: 344-348.
- Bérard-Therriault, L., M. Poulin, et L. Bossé. 1999. Guide d'identification du phytoplancton marin de l'estuaire et du golfe du Saint-Laurent incluant également certains protozoaires. Publication spéciale canadienne des sciences halieutiques et aquatiques, 128:1-387.
- Brodo, I.M. 2000. Lichenology in the American Bryological and Lichenology Society. 1899 - 1999. The Bryologist, 103: 15-27.

- Buck, H.M., M.A. Cooper, P. Cerny, J.D. Grice, and F.C. Hawthorne. 1999. Xenotime-(Yb), YbPO₄, a new mineral species from Shatford Lake pegmatite group, southeastern Manitoba. Canadian Mineralogist, 37: 1303-1306.
- Caldwell, M.W. 1999. Description and phylogenetic relationships of a new species of Coniasaurus Owen, 1850 (Squamata), Journal of Vertebrate Paleontology, 19:438-455.
- Caldwell, M.W. 1999. Squamate phylogeny and the relationships of snakes and mosasauroids. Zoological Journal of the Linnean Society, 125:115-147.
- Caldwell, M.W. 2000. On the phylogenetic relationships of Pachyrhachis within snakes: A response and a critique. Journal of Vertebrate Paleontology, 20:181-184
- Caldwell, M.W. and J. Cooper. 1999. Redescription, palæbiogeography, and palæœcology of Coniasaurus crassidens Owen, 1850 (Squamata) from the English Chalk (Cretaceous; Cenomanian), Zoological Journal of the Linnean Society, ref. #463
- Chétilat, J., F.R. Pick, A. Morin, and P.B. Hamilton. 1999. Periphyton biomass and community composition in rivers of different nutrient status. Canadian Journal of Fisheries and Aquatic Sciences, 56: 560-569
- Coad, B.W. 1998. Systematic biodiversity in the freshwater fishes of Iran. Italian Journal of Zoology, 65 (supplement):101-108.
- Coad, B.W. and J. Holcik. 1999. Systematics of the cyprinid fish Chalcalburnus atropatenæ (Berg, 1925) from the Lake Orumiyeh basin, Iran. Biologia, Bratislava, 54(2):179-186.
- Dalpé, Y. and S.G. Aiken. 1998. Arbuscular mycorrhizal fungi associated with Festuca species in the High Canadian Arctic. Canadian Journal of Botany, 76:1930-1938.
- Danks, H.V. 1999. The diversity and evolution of insect life cycles. Entomological Science, 2(4): 651-660.
- Danks, H.V. 1999. Life cycles in polar arthropods flexible or programmed? European Journal of Entomology, 96(2): 83-102.

- Ercit, T.S., F.C. Hawthorne, and M. Cooper. 1998. The crystal structure of vuonnemite, Na₁₁Ti⁴⁺Nb₂(Si₂O₇)₂(PO₄)₂O₃(F,OH), a phosphate-bearing sorosilicate of the lomonosovite group. Canadian Mineralogist, 36:1311-1320.
- Ercit, T.S. 1999. North versus south: NYF pegmatites in the Grenville Province of the Canadian Shield. Canadian Mineralogist, 37: 818-819.
- Ercit, T.S. and L.A. Groat. 1999. The O'Grady aplite-pegmatite complex: a mixed NYF-LCT pegmatite group with elbaite-bearing pocket pegmatites. Canadian Mineralogist, 37: 829-830.
- Fernández-González, D., D. Marquez, L.J. Gillespie, and M. Suárez-Cervera. 1999. Pollen grain ultrastructure of two African species of the subtribe Tragiinæ (Euphorbiaceæ). Palæœcology of Africa, 26.
- Gifford-Gonzalez, D.P., K.M.Stewart, and N. Rybczynski. 2000. Human activities and site formation at modern lake margin foraging camps in Kenya. Journal of Anthropological Archæology, 18:397-440.
- Gilhen, J. and B.W. Coad. 1999. The false catshark, Pseudotriakis microdon Brito Capello, 1867, new to the fish fauna of Atlantic Canada. Canadian Field-Naturalist 113(3):514-516
- Gillespie, L.J. 1999. Euphorbiaceæ: Acidoton, Astrococcus, Hæmatostemon, Omphalea, Pera, Plukenetia, Tragia. In: Flora of the Venezuelan Guayana. Missouri Botanical Garden (Edited by J. A. Steyermark et al.), St. Louis MO & Timber Press, Portland OR p. 833 pp.
- Grice, J.D., 1999. Redetermination of the crystal structure of hanawaltite. Canadian Mineralogist, 37: 775-778.
- Grice, J.D. and G. Ferraris. 1999. New mineral approved in 1998 by the Commission on New Minerals and Mineral Names, International Mineralogical Association. Canadian Mineralogist, 37: 247-252. Also printed in: European Journal of Mineralogy, Mineralogical Magazine, Mineralogical Record, Mineralogy and Petrology, Schweizerische Mineralogische und Petrographische Mitteilungen, Proceedings of the Russian Mineralogical Society and Boletín de la Sociedad Española Mineralogía.

- Grice, J.D., P.C. Burns, and F.C. Hawthorne. 1999. Borate minerals II. A hierarchy of structures based upon the borate fundamental building block. Canadian Mineralogist, 37: 731-762.
- Grice, J.D., M. Cooper, and F.C. Hawthorne. 1999. Crystal-structure determination of twinned kettnerite. Canadian Mineralogist, 37: 923-928.
- Hawthorne, F.C., M. Cooper, J.D. Grice, and L. Ottolini. 2000. A new anhydrous amphibole from the Eifel region Germany: Description and crystal structure of obertiite,
- $NaNa_2(Mg_3Fe^{3+}Ti^{4+})Si_8O_{22}O_2$. American Mineralogist, 85: 236-241.
- Hawthorne, F.C., M.A. Cooper, D.Green, R.E. Starkey, A.C. Roberts, and J.D. Grice. 1998. Wooldridgeite, Na₂CaCu₂²⁺(P₂O₇)₂(H₂O)₁₀: A new mineral from Judkins Quarry, Warwickshire. Mineralogical Magazine, 63: 13-16.
- Hawthorne, F.C., J.B. Selway, A. Kato, S. Matsubara, M. Shimizu, J.D. Grice, and J. Vajdak. 1999. $Magnesio foitite, (Mg_2Al)Al_6(Si_6O_{18})(BO_3)_3(OH)_4, \\$ a new alkali-deficient tourmaline. Canadian Mineralogist, 37: 1439-1443.
- Holmes, R., M.W. Caldwell, and S.L. Cumbaa. 1999. A new specimen of Plioplatecarpus (Mosasauridæ) from Alberta (Lw. Maastrichtian): Comments on allometry, functional morphology, and paleoecology. Canadian Journal of Earth Sciences, 36(3): 363-369.
- Johnsen, O., and J.D. Grice. 1999. The crystal chemistry of the eudialyte group. Canadian Mineralogist, 37: 865-892.
- Johnsen, O., R.A. Gault, J.D. Grice, and T.S. Ercit. 1999. Khomyakovite and manganokhomyakovite, two new members of the eudialyte group, from Mont Saint-Hilaire, Quebec, Canada. Canadian Mineralogist, 37: 893-899.
- Johnsen, O., J.D. Grice, and R.A. Gault. 1999. Oneillite: a new Ca-deficient and REE-rich member of the eudialyte group from Mont Saint-Hilaire, Quebec, Canada. Canadian Mineralogist, 37: 1295-1302
- Lam, A.E., L.A. Groat, J.D. Grice, and T.S. Ercit. 1999. The crystal structure of choloalite. Canadian Mineralogist, 37: 721-729.
- Lee, M.S.Y., G.L. Bell, and M.W. Caldwell. 1999. The Origins of snake feeding. Nature, 400:655-659.
- Lee, M.S.Y., M.W. Caldwell, J.S. Scanlon. 1999. A second primitive marine snake: Pachyophis woodwardi Nopcsa, Journal of Zoology, 248:509-520.
- Martel, A.L., C. Robles, K. Beckenbach, and M.J. Smith. 1999. Distinguishing early juveniles of Eastern Pacific mussels (Mytilus spp.) using morphology and genomic DNA. Invertebrate Biology, 118(2): 149-164.

- Murray, A.M. and K.M. Stewart. 1999. A new species of tilapiine cichlid from the Pliocene, Middle Awash, Ethiopia. Journal of Vertebrate Paleontology, 19(2): 293-301
- Murray, A.M. and M.V.H. Wilson. 1999. Contributions of fossils to the phylogenetic relationships of the percopsiform fishes (Tleostei: Paracanthopterygii): order restored. pp. 397-411 In: Mesozoic Fishes 2 – Systematics and Fossil Record. (Edited by G.Arratia and H.-P. Schultze). Verlag Dr. Friedrich Pfeil, München, Germany.
- Phelps, A., C.B. Renaud, and F. Chapleau. 2000. First record of a Freshwater Drum, Aplodinotus grunniens, in the Rideau River, Ottawa, Ontario. The Canadian Field-Naturalist, 114(1): 121-125.
- Renaud, C.B., M.E. Comba, and K.L.E. Kaiser. 1999. Temporal trend of organochlorine contaminant levels in the northeastern part of Lake Superior basin based on lamprey larvæ lipid burdens. Journal of Great Lakes Research, 25(4): 918-929.
- Scanlon, J.S., M.S.Y. Lee, M.W. Caldwell, and R. Shine. 1999. On the ecology of the primitive snake Pachyrhachis, Historical Biology, 13:127-152.
- Stewart, K.M., L. Leblanc, D. Matthiesen and J. West. 1999. Microfaunal remains from a modern east African raptor roost: patterning and implications for fossil bone scatters. Paleobiology, 25(4): 483-503 Vincent, W.F., J.A.E. Gibson, R. Pienitz, V. Villeneuve, P.A. Broady, P.B. Hamilton, and C. Howard-Williams. 2000. Ice shelf microbial ecosystems in the High Arctic and implications for life on snowball Earth. Naturwissenschaften, 87:137-141.
- Waller, R. 1999. Internal pollutants, risk assessment and conservation priorities. International Council of Museums, Committee for Conservation. Reprints of the 12th Triennial Meeting, Lyon. pp. 113-118.
- Waller, R., K. Andrew, and J. Tétreault. 2000. Survey of gaseous pollutant concentration distribution in mineral collections. Collection Forum, 14(1/2): 1-32.

Non Refereed Publications:

- Aiken, S.G. 1999. Challenges of the species concept in Arctic grasses based on North American experience. Det. Norske Videnskaps -Akademi. 1. Mat. - Naturv. Avhandl. Ny. Ser. 161-171.
- Aiken S.G. and M.D. Dallwitz. 1999. Interactive, illustrated taxonomic databases: a way to communicate information. Det. Norske Videnskaps - Akademi. 1. Mat. - Naturv. Avhandl. Ny. Ser. 319-325.
- Bennett, V., T. Allen, O. Kukal, H. V. Danks, D. Levin, and R. Lee. 1999. Low temperature adaptations in the freezing-tolerant high arctic woollybear caterpillars (Gynæphora grænlandica): metabolic and behavioural opportunists. Arctic Insect News No. 10: 7-10.

- Caldwell, M.W. 1999. On being and becoming: Confusion and conflation of the 'Science' of evolution. pp. 121-135. In: "Darwinism defeated?", The Johnson-Lamoureux Debate on Biological Origins", Regent College Publishing, Vancouver. 174 pp.
- Coad, B.W. 1999. Freshwater Fishes pp.655-669. In: Encyclopædia Iranica (Daneshnameh-ye Iranika) (Edited by E. Yarshater). Volume IX, Fascicule 6. Festivals VIII - Fish. Bibliotheca Persica Press, New York.
- Conlan, K.E. 1999. Influence of contaminants from McMurdo Station on Antarctic marine benthos Newsletter for the Canadian Antarctic Research Network, 8&9:9-10.
- Cumbaa, S.L. and T.T. Tokaryk. 1999. Recent discoveries of Cretaceous marine vertebrates on the eastern margins of the Western Interior Seaway. Summary of Investigations, 1999. Vol. 1. Saskatchewan Geological Survey, Saskatchewan Energy and Mines, Misc. Report, 99-4-1: 57-63.
- Danks, H.V. 1999. La dormance et les cycles biologiques. Antennæ 6(2): 5-8.
- Danks, H.V. 2000. Commentaires de clôture : Biodiversité - courants et exigences. Antennæ 7(1): 11-12.
- Ercit, T.S., L.A. Groat, and R. Gault. 1999: Genesis of the O'Grady aplite - pegmatite complex, Canada's first gem elbaite deposit. Geological Association of Canada, Program with Abstracts, 24, 36.
- Grice, J.D. 1999. The art and science of solving structures of twinned crystals. Geological Association of Canada - Mineralogical Association of Canada Joint Annual Meeting, Sudbury. May 26-28.
- Groat, L.A. and T.S. Ercit. 1996. Granitic pegmatites in northwestern Canada. Indian and Northern Affairs Canada: Yukon region. Open File, 1996-3
- Horváth, L., E. Pfenninger-Horváth, R.A Gault, and P. Tarassoff. 1999. Die Mineralien des Saint.-Amable Sill, Quebec/Kanada.
- Mineralien Welt, 10, Heft 2, 53-64 & Heft 3, 45-63. Hyslop, C. and M. Gosselin. 1999. Towards a better understanding of the status of imperilled birds in Canada. Society of Canadian Ornithologists. 4th Conference. Picoides, 12(2): 7-8.
- McCracken, C.M.C., F.C. Hawthorne, and J.D. Grice. 1999. Site assignment of Cr3+ in tourmaline: a potential new species with Cr dominant at the Y site. Geological Association of Canada - Mineralogical Association of Canada Joint Annual Meeting, Sudbury, May 26-28.
- Naughton, D. 1999. Bones of Known-Aged Beaver and Bear: a photo essay, Canadian Zooarchæology,
- Renaud, C.B. and A. Phelps. 1999. Oscar-winning catch. Trail and Landscape, 33(4): 178-180.

Phelps, A., F. Chapleau, and C.B. Renaud. 2000. The Tadpole Madtom, Noturus gyrinus, a rarely seen fish of the Rideau River System, Ontario. Trail and Landscape, 34(1): 30-34.

Published reports

- Hamilton, P.B., J. Chetelat and F. R. Pick, 1999. A comparison of monthly, bimonthly and weekly sampling strategies for the Rideau River using 1995-1998 data: Water Chemistry and Chlorophyll. Technical report, Canadian Museum of Nature
- Hamilton, P.B., L.M. Ley, and F.R. Pick. 1999. Phytoplankton biomass and densities in the Rideau River, Ottawa River, Constance Lake, Mud Lake and McKay Lake during 1998: phytoplankton composition, abundance, biomass and size distribution for May - December. Technical report, Canadian Museum of Nature 99/2: 1-285.
- Pathy, D., J. Madill, K. McKendry, K., and A. Martel. 1999. Preliminary report on the abundance of native freshwater mussels (Unionidæ) of the Rideau River, Eastern Ontario. A Canadian Museum of Nature internal Report prepared as part of the Rideau River Biodiversity Project. pp:
- Poulin, M. 1999. A multidisciplinary, communitybased study of the environmental health of the Rideau River. Progress Report (1998 and 1999) to the EJLB Foundation, Montreal. 27 p.
- Riaux-Gobin, C., M. Poulin et E. Maria. 1999. Rôle des fortes concentrations en diatomées épontiques dans la dissociation du cycle de l'azote et de la silice en zone côtière antarctique et évolution lors de la débâcle. Rapport de fin de mission du Programme Eponta 1999-2000, Terre Adélie. 6 p.
- Roberts-Pichette, P. and L.J. Gillespie, 1999. Protocoles de suivi de la biodiversité végétale terrestre. Le Réseau d'évaluation et de surveillance écologiques. Collection des publications hors-série de RESE
- Roberts-Pichette, P. and L.J. Gillespie. 1999. Terrestrial Vegetation Biodiversity Monitoring Protocols. Ecological Monitoring and Assessment Network (EMAN) Occasional Paper Series, Report No. 9.

Other

Aiken, S.G., R.L. Boles, and M.J. Dallwitz. 1999. Cyperaceæ of the Canadian Arctic Archipelago: a DELTA database for interactive identification and illustrated information retrieval. Web site: www.biodiversity.uno.edu/delta/

- Buck, H.H., M.A. Cooper, P. Cerny, F.C. Hawthorne, and J.D. Grice. 1999. [Abstract] Xenotime-(Yb), a new mineral from the Shatford Lake pegmatite group, southeastern Manitoba. Geological Association of Canada - Mineralogical Association of Canada Joint Annual Meeting, Sudbury, May 26-28.
- Danks, H.V. [Editor] 1999. Arctic Insect News No. 10. 30 pp.
- Danks, H.V. 1999. Biological Survey of Canada (Terrestrial Arthropods) Survey Report. Bulletin of the Entomological Society of Canada 31(1): 12-15.
- Danks, H.V. 1999. Biological Survey of Canada (Terrestrial Arthropods) Survey Report. Bulletin of the Entomological Society of Canada 31(3): 88-92.
- Danks, H.V. [Editor]. 1999. Newsletter of the Biological Survey of Canada (Terrestrial Arthropods) 18(2): 44-69
- Danks, H.V. [Editor] 2000. Newsletter of the Biological Survey of Canada (Terrestrial Arthropods) 19(1): 1-33.
- Danks, H.V. [Editor] 2000. Newsletter, Arthropods of Canadian Grasslands, No. 6. 29pp.
- Gillett J.M., L.L. Consaul, and S.G. Aiken. 1999. Fabaceæ of the Canadian Arctic Archipelago: a DELTA database for interactive identification and illustrated information retrieval. Published on the Web site www.biodiversity.uno.edu/delta/ and produced in book format for limited distribution to draw attention to the databases.
- Hamel, C., et J. Lauriault. 1999. [Prospectus]. Séminiare de formation en biodiversité : République de Tunisie, Institut de l'Énergie et de l'Environnement de la Francophonie, Université du Québec à Montréal et le Musée canadien de la nature, Livre des participants, mai 1999. 141 p.
- Hamel, C. et J. Lauriault. 1999. [Prospectus]. Séminaire de formation en biodiversité République du Cameroun, Institut de l'Énergie et de l'Environnement de la Francophonie, Université du Québec à Montréal et le Musée canadien de la nature, Livre des participants, juillet 1999. 132 p.
- Hamel, C. et J. Lauriault. 1999. [Prospectus]. Séminaire de formation en biodiversité : République du Gabon, Institut de l'Énergie et de l'Environnement de la Francophonie, Université du Québec à Montréal et le Musée canadien de la nature, Livre des participants, juillet 1999. 132 p.
- Hamel, C. et J. Lauriault. 1999. [Prospectus]. Séminiare de formation en biodiversité : Royaume du Maroc, Institut de l'Énergie et de l'Environnement de la Francophonie, Université du Québec à Montréal et le Musée canadien de la nature, Livre des participants, mai 1999. 136 p.
- Hamilton, P.B., D.R.S. Lean, K.R. Solomon, N.K. Kaushik, and G.L. Stephenson. 1999. [Abstract].

- Impact of Diuron in freshwater aquatic enclosures. 12th International Association Phytoplankton Taxonomy and Ecology Workshop, Program, p.13.
- Hamilton, P.B., M. Proulx, and C. Earle. 1999. [Abstract]. Enumerating phytoplankton with an upright compound microscope. 12th International Association Phytoplankton Taxonomy and Ecology Workshop, Program, p.13.
- Harrison, T., A.M. Murray, C.P. Msuya, B. Fine Jacobs, and A.M. Bæz. 1998. [Abstract]. Mahenge: an early eocene lagerstatte in Tanzania, East Africa. Journal of vertebrate Paleontology, 18(supp. to 3): 49A
- Hyslop, C. and M. Gosselin. 1999. [Abstract]. Towards a better understanding of the status of imperilled birds in Canada. Society of Canadian Ornithologists. 4th Conference. p.21
- Lam, A.E., L.A. Groat, J.D. Grice, H.W. Meyer, W. Morgenroth, and U. Bismayer. 1999. [Abstract] A synchrotron X-ray study of the crystal structure of græmite, a tellurite mineral. Geological Association of Canada - Mineralogical Association of Canada Joint Annual Meeting, Sudbury, May 26-28.
- May, P.F. and I.M. Brodo. 2000. Identifying North American lichens - A guide to the literature [on line]. Farlow Herbarium, Cambridge, MA. Available: www.herbaria.harvard.edu/Data/ Farlow/lichenguide/index.html
- Poulin M., L. Ector, and M. Coste. 1999. [Abstract]. Base de données sur les diatomées: table ronde. 18ème Colloque de l'Association des Diatomistes de langue française, Programme scientifique, p. 46.
- Poulin M., P.B. Hamilton, and C. Billington 1999. [Abstract]. La biodiversité de la rivière Rideau, une étude pluridisciplinaire selon une approche communautaire. 18ème Colloque de l'Association des Diatomistes de Langue Française, Programme scientifique, p. 44.
- Poulin M. and D. Williams 1999. [Abstract]. Une perspective de conservation de la biodiversité des diatomées. 18ème Colloque de l'Association des Diatomistes de Langue Française, Programme scientifique, p. 45.
- Riaux-Gobin, C., M. Poulin, et R. Prodon. 1999. [Résumé]. Communautés phytoplanctoniques et "épontiques" en Terre Adélie : relations avec les facteurs du milieu et gradient côte-large en période de débâcle dans: Compte rendu du 17e colloque de l'Association des diatomistes de langue française, 8-11 septembre 1998, Luxembourg (Édité par L. Ector, A. Loncin et L. Hoffmann). Cryptogamie, Algologie, 20:119-120.
- Roberts-Pichette, P. and L.J. Gillespie. 1999. Terrestrial Vegetation Biodiversity Monitoring Protocols. Ecological Monitoring and Assessment Network (EMAN) Web site:
- www.cciw.ca/test/vegetation [test version]



CARING FOR THE ENVIRONMENT

A group of high school students took part in field work last summer under the Environmental Stewardship Programme for the management of Museum land adjacent to the NHB site and a compensatory wetland site near Ottawa. CMN makes every effort to ensure that land assets are responsibly managed to preserve biological diversity. This programme, developed by Museum stakeholders, provides guidance for research, land management practice and public education.

RESEARCH ASSOCIATES

Refereed Publications

Dyke, A.S., J. Hooper, C.R. Harington, and J.M. Savelle. 1999. The Late Wisconsinan and Holocene record of walrus (Odobenus rosmarus) from North America: a review with new data from Arctic and Atlantic Canada. Arctic 52(2): 160-181.

Holmes, R.B. and H.-D. Sues. 2000. A partial skeleton of the basal mosasaur Halisaurus platyspondulous from the Severn formation (upper cretaceous: maastrictian) of Maryland. Journal of Paleontology, 74: 309-316.

Harrison, J.C., U. Mayr, D.H. McNeil, A.R. Sweet, D.J. McIntyre, J.J. Eberle, C.R. Harington, J.A. Chalmers, G. Dann, and H. Nøhr-Hansen. 1999. Correlation of Cenozoic sequences of the Canadian Arctic region and Greenland; implications for the tectonic history of northern North America. Bulletin of Canadian Petroleum Geology 47(3): 223-254.

Hulbert, R.C. and C.R. Harington. 1999. An early Pliocene hipparionine horse from the Canadian Arctic. Palæontology 42, Part 6: 1017-1025.

Warren, R.E. and C.R. Harington. 1998. Paleœcology of freshwater bivalves (Unionoidea) from Pleistocene deposits in the Old Crow Basin, Yukon Territory. In: Quaternary Paleozoology in the Northern Hemisphere. (Edited by J.J. Saunders, B.W. Styles and G.F. Baryshnikov. Illinois State Museum Scientific Papers 27: 249-284.

Wight, W. 1999. Explosion of new interest in Canadian gemstones, Canadian Gemmologist, 20(2), 45-53.

Wight, W. 1999. Check-list for rare gemstones -Lazulite, Canadian Gemmologist, 20(3), 89-91.

Wight, W. 1999. Check-list for rare gemstones -Wardite, Canadian Gemmologist, 20(4), 125-127.

Wight, W.1999. Colourless Cordierite, Canadian Gemmologist, 20(2), 57-58.

Wight, W.2000. Check-list for rare gemstones -Augelite, Canadian Gemmologist, 21(1), 17-19.

Wight, W. 1999. Canadian Diamond News, Canadian Gemmologist, 20(3), 101-102.

Manuscripts published in non-refereed publications

Cook, F. R. 1998. Editor's Report for The Canadian Field-Naturalist volume 112. Canadian Field-Naturalist, 113(2): 315-317.

Cook, F. R. 1999. [Book Review] Herpetology. Canadian Field-Naturalist, 113(3): 535-536.

Cook, F. R. 1999. [Book Review] Amphibians in decline: Canadian studies of a global problem. Canadian Field-Naturalist, 113(3): 536-537.

Cook, F. R. 1999. [Book Review] Amphibians and Reptiles of the Great Lakes Region. Canadian Field-Naturalist, 113(3): 538-539.

Cook, F. R. 1999. [Book Review] A field guide to the life and times of Roger Conant, Canadian Field-Naturalist, 113(3): 554-553.

Cook, F. R. 1999. [Book Review] Encyclopedia of Reptiles and Amphibians. Canadian Field-Naturalist, 113(4): 700-701.

Harington, C.R. 1999. Ancient caribou. Beringian Research Notes 12:1-4.

Other

Argus, G.W., C.L. McJannet, and M.J. Dallwitz. 1999. Salicaceæ of the Canadian Arctic Archipelago: a DELTA database for interactive identification and illustrated information retrieval.

Website: www.biodiversity.uno.edu/delta/

Cook, F. R. [Editor]. 1999. The Canadian Field-Naturalist, 113(1): 1-214 [Special Issue on History of Canadian Wildlife Service]. 5 April 1999.

Cook, F. R. [Editor]. 1999. The Canadian Field-Naturalist, 113(2): 215-374). 4 June 1999.

Cook, F. R. [Editor]. 1999. The Canadian Field-Naturalist, 113(3): 375-556. 14 September 1999.

Cook, F. R. [Editor]. 1999. The Canadian Field-Naturalist, 113(4): 559-746). 17 December 1999.

Cook, F. R. [Editor]. 2000. The Canadian Field-Naturalist, 114(1):1-186. 7 March 2000.

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MEGALODON SWIMS TO THE TOP Megalodon: the Prehistoric Shark, coauthored by CMN's Dr. Steve Cumbaa and Susan Hughes, was named best children's book published in Canada in 1998 by the Canadian Science Writers' Association. Published by Somerville House, the book is part of ongoing efforts by CMN to popularize science.

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RAPTORS FLY HIGH

A live peregrine falcon captured participants' attention at a VMMB seminar on endangered species, co-sponsored with the Canadian Peregrine Foundation. Presenters described the peregrine falcon in relation to other raptors and why it is endangered, and gave suggestions of what can be done to help the peregrine and other rare species in need of human assistance. Peregrines used in such presentations are all non-releasable birds, as a result of prior injury.

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Bernard Baum, Botany, Agriculture and Agri-Foods Canada, Ottawa, Ontario

Valerie M. Behan-Pelletier, ECORC, Agriculture and Agri-Food Canada, Ottawa, Ontario

G. Bell, South Dakota School of Mines & Technology, Rapid City, South Dakota

J.T. Black, Scripps Institution of Oceanography, San Diego, California

S. Blasco, Yale University Press.

New Haven, Connecticut

J. Bonaparte, Museo Argentino de Ciencias Naturales "Bernardino Rivadavia", Buenos Aires, Argentina

Claude J. Bouchard, Gouvernement du Québec, Sainte-Foy, Quebec

E.L. Bousfield, Geological Survey of Canada, Ottawa, Ontario

B. Breithaupt, University of Wyoming, Laramie, Wyoming

N. Brochin

A. Brooks, George Washington University, Washington DC

J. Calvo, Universidad Nacional del Comahué, Neuquén, Argentina

Robert A. Cannings, Royal British Columbia Museum, Victoria, British Columbia

Canadian Heritage Canada

Carleton University, Environmental Science Program, Ottawa, Ontario

P. Cerny, Laval University, Quebec, Quebec

Center for Traditional Knowledge,

Ottawa, Ontario

François Chapleau, Zoology, University of Ottawa, Ottawa, Ontario

F. Chapleau, Yale University Press, New Haven, Connecticut

M. Chartier, Dept. d'Anthropologie, Université de Montréal, Montreal Quebec

- J. Cinq-Mars, Archæological Survey of Canada, Canadian Museum of Civilization, Hull, Quebec
- M.E. Comba, University of Ottawa, Ottawa, Ontario
- J. Cooper, Booth Museum, Brighton, United Kingdom
- G. Coupland, University of Toronto, Toronto, Ontario
- Douglas C. Currie, Centre for Biodiversity and Conservation Biology, Royal Ontario Museum, Toronto, Ontario
- C. Dal Sasso, Museo Civico di Storia Naturale, Milan, Italy
- M.J. Dallwitz, National Water Research Institute, Burlington, Ontario
- M.R. Dawson, Carnegie Museum, Pittsburgh, Pennsylvania
- C. De Broyer, CSIRO, Entomology, Canberra, Australia
- Hironori Deguchi, Dept. of Biological Science, Hiroshima University, Kagami-yama, Higashi-hiroshima-shi, Japan
- J.-M. Deschênes, Eastern Cereal and Oilseed Research Centre, Agriculture and Agri-Food Canada, Ottawa, Ontario
- H. Dompierre, University of Ottawa, Ottawa, Ontario
- N. Doubleday, Dept. of Geography, Carleton University, Ottawa, Ontario
- M. Douglas, Dept. of Geology, University of Toronto, Toronto, Ontario
- R. Elven
- Embassy of Peru, Ottawa, Ontario
- Expatriate Resources, Whitehorse, Yukon
- Kevin D. Floate, Lethbridge Research Centre, Livestock Section, Agriculture and Agri-Food Canada, Lethbridge, Alberta
- C. Forster, State University of New York, Stony Brook, New York

- J.G. Fyles, Terrain Sciences Division, Geological Survey of Canada, Ottawa, Ontario
- K. Gajewski, Institut Royal des Sciences Naturelles de Belgique, Brussells, Belgium
- Donna J. Giberson, Dept. of Biology, University of Prince Edward Island, Charlottetown, Prince Edward Island
- D. Gifford-Gonzalez, University of California-Santa Cruz, California
- Linda Gilkeson, Pesticide Management Section, BC Environment, Victoria, British Columbia
- H. Gill, University of Ottawa, Ottawa, Ontario
- R. Gotthardt, Heritage Branch, Government of Yukon, Whitehorse, Yukon
- T. Goward, Murdoch University, Australia
- Lee A. Groat, Dept. of Geological Sciences, University of Manitoba, Winnipeg, Manitoba
- D. Guthrie, Dept. Biological Sciences, University of Alaska, Fairbanks, Alaska
- D. Haffner
- Eric Steen Hansen, University of Copenhagen, Copenhagen, Denmark
- Peter Harper, Département des sciences biologiques, Université de Montréal, Montreal, Quebec
- J.W.K. Harris, Rutgers University, New Jersey
- R.C. Harris, University of Windsor,
- Windsor, Ontario
- T. Harrison, New York University, New York
- F.C. Hawthorne, Dept. of Earth & Ocean Sciences, University of British Columbia, Vancouver, British Columbia
- T.A.J. Hedderson, Dept. of Botany, University of Reading, Reading, England
- Gayle Hermick, Chelsea, Quebec
- A. Herrera, New York Botanical Garden, Bronx. New York
- L.V. Hills, Dept. of Geology and Geophysics, University of Calgary, Calgary, Alberta

- R. Holmes. CMN Research Associate. Vanier College, Montreal, Quebec
- Bonnie Hrycyk, Polar Continental Shelf Project, Ottawa, Ontario
- John E. Huber, Canadian Forest Service, Ottawa, Ontario
- H. Hutchison, Museum of Paleontology, University of California, Berkeley, California
- Ikebana International, Chapter 120, Ottawa, Ontario
- P. Iampietro, Instituto Nacional de Biodiversidad, Santo Domingo, Costa Rica
- Ole Johnsen, University of Copenhagen Geological Museum, Copenhagen, Denmark
- K.L.E. Kaiser, California State University, Monterey, California
- H. Kashiwadani, Dept. of Botany, National Science Museum, Tsukuba, Ibaraki Pref., Japan
- S. Kerr, National Water Research Institute, Burlington, Ontario
- S. Kim, Ontario Ministry of Natural Resources, Peterborough, Ontario
- B. Kohlmann, Moss Landing Marine Laboratories, California State University, Monterey, California
- R. Kvitek, EARTH, Costa Rica
- K. Laird, California State University, Monterey, California
- André Lalonde, Mineralogy, University of Ottawa, Ottawa, Ontario
- S. Lamerdin, Queen's University, Kingston, Ontario
- D. Lamoureux, St. Joseph's College, University of Alberta, Edmonton Alberta
- A. Lanteri, Moss Landing Marine Laboratories, California State University, Monterey, California
- David J. Larson, Department of Biology, Memorial University of Newfoundand, St. John's, Newfoundland
- A. Lawrence, Museo de La Plata, La Plata, Argentina M.G. Leakey, National Museum of Kenya, Nairobi, Kenya



UNMASK THAT URCHIN

Many marine animals have intriguing strategies for eating and not being eaten. Anemones use harpoons, nudibranchs capture the harpoons for their own use, urchins masquerade as part of the seabed, and sea butterflies make themselves taste bad. Researcher Dr. Kathy Conlan gave a talk during March break explaining these and other examples to a group of fascinated school children. She also showed some live animals and got children dressed up in scuba gear.

Oregonia gracilis



REAL SCIENTIFIC CHAT ROOMS

Bearing gold, fossil sharks and jars of parasites, over 20 CMN scientists shared their scientific knowledge and enthusiasm as part of the Meet our Scientists program. They talked about what's it like to dig for dinosaur fossils or explore for minerals in a remote area of Greenland. Presenters included Judith Price, so respected for her work as the museum's parasite collection curator that she's had a frog parasite named after her.

- D. Lean, Parks Canada, Aulavik National Park, Banks Island, NWT
- R. LeBlanc, Dept. Anthropology, University of Alberta, Edmonton, Alberta
- M. S.Y. Lee, University of Queensland, St. Lucia, Australia
- H.S. Lenihan, University of Ottawa, Ottawa, Ontario
- H. Thorsten Lumbsch, Universität Gesamthochschule-Essen, Essen, Germany
- P. May, University of North Carolina, Durham, North Carolina
- R.L. Mayden
- A. McDonald, Geologisk Museum, University of Copenhagen, Copenhagen, Denmark
- R. McNeely, Terrain Sciences, Geological Survey of Canada, Ottawa, Ontario
- Roland Moberg, Botanical Museum, Uppsala University, Uppsala, Sweden
- P. Moller, Geological Survey of Canada, Ottawa, Ontario
- T. A. Moon, Ministère de l'Agriculture, Pêcheries et Alimentation du Québec, MAPAQ, Cap-aux-meules, Quebec
- R.E. Morlan, Archæological Survey of Canada, Canadian Museum of Civilization, Hull, Quebec
- R.J. Mott, Terrain Sciences, Geological Survey of Canada, Ottawa, Ontario
- G. Mustœ, Dept. of Geology, Western Washington University, Bellingham, Washington
- B. Myrand, Zoological Museum, Copenhagen, Denmark
- Thomas Nash III, Dept. of Plant Biology, Arizona University, Tempe, Arizona
- Walter Obermayer, Instutue für Botanik, Karl-Franzens-Universität, Graz, Austria
- J. Oliver, Illinois State Museum, Springfield, Illinois
- G. Onore, Dept. of Biology, University of Ottawa, Ottawa, Ontario

- Frances Pick, University of Ottawa, Ottawa, Ontario
- Reinard Pienitz, Laval University, Québec, Quebec
- I.C. Potter, Laval University, Quebec, Quebec
- E. Pryzdial, Murdoch University, Australia
- J.-C. Rage, Musem Nationale d'histoire Naturelle, Paris, France
- G. Rau, Canadian Blood Services, Ottawa, Ontario
- J.D. Reist, Institute of Marine Sciences, University of California, Santa Cruz, California
- Richard A. Ring, Department of Biology, University of Victoria, Victoria, British Columbia
- A.C. Roberts, Dept. of Geology, Laurentian University, Sudbury, Ontario
- C. Robles, Fisheries and Oceans, Winnipeg, Manitoba
- Rob Roughley, Department of Entomology, University of Manitoba, Winnipeg, Manitoba
- Dale Russell, Dept. of Marine, Earth, and Atmospheric Sciences, North Carolina State University, Raleigh, North Carolina
- M. Ryan, University of Calgary, Calgary, Alberta
- N. Rybczynski, Duke University, North Carolina
- J. Scanlon, University of Queensland, St. Lucia, Australia
- C. Schröder-Adams, Dept. of Earth Sciences, Carleton University, Ottawa, Ontario
- H. P. Schultze, Institut für Paläontologie, Museum für Naturkunde der Humboldt-Universität, Berlin, Germany
- Geoff G.E. Scudder, Dept. of Zoology, University of British Columbia, Vancouver, British Columbia
- A. Sher, Russian Academy of Sciences, Moscow, Russia
- C.-taiShih, California State University in Los Angeles, CSULA, Los Angeles, California
- Joseph D. Shorthouse, Department of Biology, Laurentian University, Sudbury, Ontario
- Ian M. Smith, ECORC, Agriculture and Agri-Food Canada, Ottawa, Ontario

- F. Stewart, University of New Brunswick, Moncton, New Brunswick
- J.D. Stewart, Vertebrate Paleontology, Natural History Museum, Los Angeles, California
- J. Storer, Yukon Palæontologist, Heritage Branch, Tourism Yukon, Whitehorse, Yukon
- M. Stott, Veterinary Genetics Laboratory, University of California, Davis, California
- David Strayer, Ohio State University, Ohio
- H.-D. Sues, Royal Ontario Museum, Toronto, Ontario
- J.S. Tener, Ottawa, Ontario
- M. Thurston
- T. Tokaryk, Eastend Fossil Research Station, Royal Saskatchewan Museum, Regina, Saskatchewan
- W. Vincent, Southampton Oceanography Centre, Southampton, United Kingdom
- B. Wengzynowski, Alpine Gems, Kingston, Ontario
- Terry A. Wheeler, Lyman Entomological Museum, Department of Natural Resource Sciences, McGill University, St.-Anne-de-Bellevue, Quebec
- J. Wiffen, Hawkes Bay, New Zealand
- B. Wigen, University of Victoria, Victoria, British Columbia
- B. Wilson, Dept. of Mineral Sciences, Smithsonian Inst., Washington DC
- M.A. Wise, Geological Survey of Canada, Ottawa, Ontario
- Emily W. Wood, Cambridge, Massachusetts
- Dale A. Wrubleski, Ducks Unlimited Canada, Institute for Wetland and Waterfowl Research, Stonewall, Manitoba
- X.-C. Wu, Royal Tyrrell Museum of Palæontology, Drumheller, Alberta
- J. Yellen, National Science Foundation, Washington DC

THIS YEAR 182 MEMBERS OF THE COMMUNITY CONTRIBUTED THEIR TIME AND 9,436 ENTHUSIASM TO SUPPORT CMNPROGRAMMING. THE HOURS THEY VOLUNTEERED IN TOTAL HAS AN ESTIMATED ECONOMIC VALUE OF \$155,600.

Mollie MacCormac

VOLUNTEERS Clémence Ahounou Cliff Anderton Paul Andrews Melba Angell Lorne Atchison Celina Bak Clare Barrans **Audrey Barrass** Elizabeth Boileau Catherine Borza Irène Boucher Michæl Bousada Pat Bowen Colin Bowen Carole Brown Claudia Burns Daniel Bush

Phil Campbell Isabelle Carigman-Chagnon Mélissa Carpentier Harold Chase Ricky Choquette Chantal Cloutier John Coltess Adam Cooke Malcolm Coupe William Creelman Wheting Dan Gretchen Denton Naomi DeSilva

John Cameron

Louise Campagna

Wendy Dion Heather Duthie Frank Dyson **Bob Emmerson** Phyllis Esdon Anna Filk Elizabeth Fortin Sabrina Francœur

Uwe Frank

Laura Fullarton

Lydia Gareau Alain Gauthier

Martine Deslauriers

Mireille Deussing

Nicholas Gauthier Claire Gauvin Huguette Gavrel Carol German Marilyn Gilbert Melinda Glockling Robin Gold Eric Gosselin Virginia Grant Nancy Greenberg Jennifer Griffiths Karine Grimard Jack Hall Nancy Hanna Adeline Hardie Louise Haridge Gail Harington Kyle Hayward Mimi Hoang Lynda Holleman Peggy Holton Priscilla Hu John Hunt Betty Anne Hurst Krista Johns Sol Kaiman Lynn Kaplansky Carmel Kasper Robert Kelly Vivien Kemeny Nathan Klein Pauline Klosevych Thomas Kurys Judy Leeson Diane Lemieux Hélène Lepage Isabelle Lesage Jean-Francois Létourneau Barbara Liddy Monika Lieberenz Kathleen Liver Andrew Logan Jessie Love Nancy Luc Nicole Lupien

Eloise Lupien-Dufresne

Lori Macadam

Samantha Macko Hélène Maillet-Séguin Robin Main Pat Martin Philip Martin Julien Maynard Laurence-Olivier Maynard Dorine McCurrie Mana McDonald Alan McDonald Deborah McDonald George McIlhinney Elizabeth McMillan Trina McMillan Sharron Meier Jean-Michel Melanson-Drapeau Valérie Ménard Vivian Menzies Jane Merlin Sandra Millar Alexiane Montpetit-Meilleur Anne Morin Elie Moussalli Isabel Muir Lillian Munro Arlene Neilson Amber Nicholson Deborah Nizman Moaméra Omerovic Cory Pagé Michel Paradis Martin Paris Mary Parsons Diane Pathy Dale Patten Jane Pearce Eva Peralta Panyada Phandanouvong Lisa Plitz Brigitte Pombert Nancy Ponce

Violeta Ponce

Joyce Qiunce

Debora Quayle

Clifford Quince

Zaire Puil

Isabelle Quevillon Taissir Rachid Laila Rachid John Ratcliffe Josette Robert Alex Robertson Main Robin Julia Rose Joan Rowed Susan Rust Tina Saffioti Denise Sarda Adam Saulis Roger Séguin Katherine Steigerwald Jennifer Storey Ada Su Elaine Sung David Symons Valerie Tait Mehmet F. Taner John Tener Riane Rose Therrien Ted Tozer Camille Tremblay Marianne Trépanier Margot Watt Dan Wheting Joan White Eric Wong Kimberly Wong Roy Wood Elizabeth Woodbury Shirley Xing Erin Zeleny



MANAGING OUR FINANCIAL RESOURCES

FINANCIAL ANALYSIS

The following provides an analysis of the 2000 financial results of the Museum in comparison to 1999.

Comparison of Financial Results

(in thousands of dollars)

	2000	% increase (decrease)	1999	% increase (decrease)*
REVENUE				
Parliamentary appropriation	21,772	5%	20,737	(7)%
Amortization of deferred capital funding	588	10%	536	(16)%
Generated revenue	1,863	13%	1,649	(14)%
Total revenue	24,223	6%	22,922	
EXPENSES				
Personnel costs	9,411	7%	8,756	(0.4)%
Severance costs	186	88%	99	(92)%
Stonework project costs	_	(100)%	180	(91)%
Interest on capital lease obligation	3,398	(1)%	3,425	(1)%
Depreciation of capital assets	1,590	(3)%	1,633	6%
Operating expenses	8,893	(3)%	9,132	(9)%
Total operating expenses	23,478	1%	23,225	(14)%
Excess (deficiency) of revenue over expenses	745	346%	(303)	85%
Equity of Canada, beginning of year	(773)	A*	(470)	
Equity of Canada, end of year	(28)	96%	(773)	(65)%

^{*} Relative to 1998 figures

During fiscal year 2000, the CMN's parliamentary appropriation increased by 5% or \$1,035,000 due to the approval of additional financing to address Year 2000 issues and an increase in reference levels to compensate for price and workload increases that had occurred over the years.

Generated revenue for fiscal 2000 is higher than for fiscal year 1999 by \$214 thousand mainly due to higher revenue from commercial operations, contributions and interest income.

Personnel costs of approximately \$9.4 million for the year are the single most significant expense of the Corporation, representing approximately 39% of total revenue. Personnel costs have gone up by 7% from 1999 as a result of normal wage increase and additional human resources on staff due to minor reorganization of responsibilities.

The operating expenses for 2000 are lower than for fiscal year 1999 by \$239 thousand as a result of the combined effect of two factors. The first factor is a successful municipal tax appeal to the City of Aylmer, Quebec. A significant portion of the settlement was applied as a credit to the first tax installment of 2000 which was due in February 2000 therefore reducing the expenses for the CMN. The full amount of the first factor is offset in part by the development of larger scale exhibits in 2000 compared to the prior year causing higher exhibit expenses of \$371 thousand.

The CMN reports an Excess of revenue over expenses of \$745 thousand for fiscal year 2000. However the Museum anticipates consecutive years of

deficiencies of revenue over expenses because of depreciation charges (\$992 thousand in 2000) for its facility in Aylmer, Quebec, which is shown on the Museum's balance sheet as a capital lease. Prior to aquiring this building in 1997, the Museum only leased facilities, and therefore did not report on its Statement of Operations depreciation charges relating to a building. These lease dollars were converted in 1997 to payments on the capital lease for the facility thus creating an imbalance on the Statement of Operations. This accounting treatment will keep the Corporation's Equity in a deficit position for many years. The situation will begin to reverse itself near the mid-point of the lease term and completely rectify itself over the full term of the lease. This does not impact the Corporation's cash flow or financial stability in any way.

The Museum faces a major challenge with the high cost of carrying and operating its two facilities. To relieve this situation, the Museum is exploring the idea of PWGSC purchasing the Natural Heritage Building (i.e. paying out the capital lease) to reduce the carrying costs for the Museum. The impact of such a transaction would be the removal of depreciation charges and the reduction of the interest expense of approximately \$3.5M annually from the Museum's financial statements, thereby improving the Museum's equity position. The financial statements would have a more positive impact in negotiations with potential sponsors.

FINANCIAL STATEMENTS

MANAGEMENT'S RESPONSIBILITY OF FINANCIAL REPORTING

Management is responsible for establishing and maintaining a system of books, records, internal controls and management practices to provide reasonable assurance that: reliable financial information is produced; the assets of the Corporation are safeguarded and controlled; the transactions of the Corporation are in accordance with the relevant legislation, regulations and bylaws of the Corporation; the resources of the Corporation are managed efficiently and economically; and the operations of the Corporation are carried out effectively.

Management is also responsible for the integrity and objectivity of the financial statements of the Corporation. The accompanying financial statements were prepared in accordance with generally accepted accounting principles. The financial information contained elsewhere in this annual report is consistent with that in the financial statements.

The Board of Trustees is responsible for ensuring that management fulfils its responsibilities for financial reporting and internal control. The Board exercises its responsibilities through the Audit and Finance Committee, which includes a majority of members who are not officers of the Corporation. The Committee meets from time to time with management, the Corporation's internal auditors and the Auditor General of Canada to review the manner in which these groups are performing their responsibilities, and to discuss auditing, internal controls, and other relevant financial matters. The Board of Trustees has reviewed the financial statements with the Auditor General of Canada and has approved them.

The financial statements have been audited by the Auditor General of Canada. His report offers an independent opinion on the financial statements to the Minister of Canadian Heritage.

Joanne DiCosimo

President and Chief Executive Officer

Vice-President, Corporate Services and Chief Operating Officer

June 2, 2000

AUDITOR'S REPORT

To the Minister of Canadian Heritage

I have audited the balance sheet of the Canadian Museum of Nature as at March 31, 2000 and the statements of operations and equity of Canada and cash flows for the year then ended. These financial statements are the responsibility of the Corporation's management. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of the Corporation as at March 31, 2000 and the results of its operations and its cash flows for the year then ended in accordance with generally accepted accounting principles. As required by the Financial Administration Act, I report that, in my opinion, these principles have been applied on a basis consistent with that of the preceding year.

Further, in my opinion, the transactions of the Corporation that have come to my notice during my audit of the financial statements have, in all significant respects, been in accordance with Part X of the Financial Administration Act and regulations, the Museums Act and the by-laws of the Corporation.

Richard Flageole, FCA

Assistant Auditor General

for the Auditor General of Canada

Ottawa, Canada

June 2, 2000

Balance Sheet as at March 31, 2000

(in thousands of dollars)

	Notes	2000	1999
ASSETS			
Current			
Cash and short-term investments	3	4,770	3,696
Accounts receivable			·
Trade		401	257
Government departments and agencies		919	326
Inventory		14	22
Prepaid expenses		975	844
		7,079	5,145
Restricted cash and short-term investments	3, 4	629	637
Collections	5	1	1
Capital assets	6	35,813	37,229
Control of the Contro		43,522	43,012
LIABILITIES		-	
Current			
Accounts payable and accrued liabilities			
Trade		2,080	1,423
Government departments and agencies		676	836
Current portion - obligation under capital lease	7	163	147
Current portion - Department of Canadian Heritage	7	347	333
Deferred revenue and parliamentary appropriation	A.	427	602
Provision for termination benefits		131	86
		3,824	3,427
Obligation under capital lease	7	33,520	33,683
Loan - Department of Canadian Heritage	7	738	1,085
Deferred capital funding	8	3,947	4,171
Provision for termination benefits		892	782
Deferred contributions	9	379	387
A Company of the Comp		43,300	43,535
Endowment	10	250	250
EQUITY OF CANADA		(28)	(773
		43,522	43,012

The notes form an integral part of the financial statements.

Approved by the Board of Trustees:

Frank Ling

Chairman of the Board of Trustees

R. Kenneth Armstrong

Chairman of the Audit and Finance Committee

Recommended by Management:

Vice President, Corporate Services and Chief Operating Officer

Radovceur Lynne Ladouceur, CA

Senior Full Time Financial Officer

Statement of Operations and Equity of Canada for the year ended March 31, 2000 (in thousands of dollars)

	Notes	2000	1999
REVENUE			
Commercial operations	11	990	907
Contributions		292	180
Educational programmes		154	188
Scientific services		58	72
Interest income		344	259
Other		25	43
		1,863	1,649
EXPENSES			
Personnel costs		9,411	8,756
Severance costs		186	99
Interest on capital lease obligation		3,398	3,425
Operation and maintenance of buildings		2,644	2,561
Professional and special services		2,061	1,913
Depreciation of capital assets		1,590	1,633
Information management infrastructure and systems		1,225	1,214
Real property leases and taxes		800	1,611
Marketing and communications		549	490
Material and equipment		549	579
Exhibits		546	175
Travel		331	396
Repairs and maintenance		92 -	63
Stonework project costs		_	180
Freight and cartage		74	109
Purchase of objects for collections		4	_
Other -		18	21
		23,478	23,225
Not result of energians before consumert foodier		(01.015)	101 570
Net result of operations before government funding	10	(21,615)	(21,576
Parliamentary appropriation for operating expenditures	12	21,772	20,737
Amortization of deferred capital funding	8	588	536
Net result of operations	13	745	(303)
Equity of Canada, beginning of year		(773)	(470
Equity of Canada, end of year		(28)	(773

The notes form an integral part of the financial statements.

Statement of Cash Flows for the year ended March 31, 2000 (in thousands of dollars)

(II) US all US OF Contact of			
	2000	1999	
OPERATING ACTIVITIES			
Net result of operations	745	(303)	
Items not involving cash:			
Depreciation of capital assets	1,590	1,633	
Employee termination benefits	155	32	
Amortization of deferred capital funding	(588)	(536)	
(Decrease) increase in deferred contributions	(8)	64	
Net change in non-cash working capital	(538)	323	
	1,356	1,213	
FINANCING ACTIVITIES	(333)	(319)	
Repayment of loan from the Department of Canadian Heritage		168	
Appropriation used to purchase depreciable capital assets	364		
Obligation under capital lease	(147)	(133)	
	(116)	(284)	
INVESTING ACTIVITIES			
Acquisition of capital assets	(174)	(454)	
Decrease in restricted cash and short-term investments	8	157	
	(166)	(297)	
Increase in cash and short-term investments	1,074	632	
Cash and short-term investments, beginning of year	3,696	3,064	
Cash and short-term investments, end of year	4,770	3,696	

The notes form an integral part of the financial statements.

NOTES TO FINANCIAL STATEMENTS

for the year ended March 31, 2000

1. Authority and Mission

The Canadian Museum of Nature was established by the Museums Act on July 1st, 1990, and is an agent Crown corporation named in Part I of Schedule III to the Financial Administration Act.

The Corporation's mission is to increase, throughout Canada and internationally, interest in, knowledge of and appreciation and respect for the natural world by establishing, maintaining and developing for research and posterity a collection of natural history objects, with special but not exclusive reference to Canada, and by demonstrating the natural world, the knowledge derived from it and the understanding it represents.

2. Significant Accounting Policies

These financial statements are prepared in accordance with generally accepted accounting principles and reflect the following policies.

- A) Inventory Inventory of publications is valued at the lower of cost and net realizable value.
- B) Capital Assets Capital assets are recorded at cost. Assets recorded as capital leases are initially recorded at the present value of the minimum lease payments at the inception of the lease. Depreciation is calculated on the straight-line method using rates based on the estimated useful life of the assets as follows:

Property under capital lease	ears
Collection cabinets and compactors	ears
Research equipment	ears
Technical equipment	ears
Furnishings and office equipment	ears
Motor vehicles	ears
Computer equipment and software	ears

Major leasehold improvements are capitalized and depreciated over the term of the respective leases to a maximum period of five years.

Material and equipment acquired for the purpose of the design, development and maintenance of exhibits are charged to operations in the year of acquisition.

C) Collections - The Canadian Museum of Nature holds and preserves invaluable collections of natural history specimens for the benefit of Canadians, present and future. The collections form the largest part of the assets of the Corporation. The collections are shown as an asset on the balance sheet at a nominal value of \$1,000 due to practical difficulties in determining a meaningful value for these assets. Objects purchased for the collections are recorded as an expense in the year of acquisition. Objects donated to the Corporation are not recorded in the books of accounts.

D) Pension Plan - The Corporation's employees participate in the Public Service Superannuation Plan administered by the Government of Canada. Contributions to the Plan are made both by the employees and the Corporation on an equal basis. These contributions represent the total pension obligations of the Corporation and are recognized in the accounts on a current basis.

The Corporation is not required to make contributions with respect to actuarial deficiencies of the Public Service Superannuation Account.

- E) Employee Termination Benefits Employees of the Corporation are entitled to specified benefits on termination as provided under labour contracts and conditions of employment. The liability for these benefits is recorded in the accounts as the benefits accrue to the employees under the respective terms of employment.
- F) Parliamentary Appropriation The parliamentary appropriation for operating expenditures is recognized as revenue in the fiscal year for which it is approved. The portion of the parliamentary appropriation used to purchase depreciable capital assets is recorded as deferred capital funding and amortized on the same basis and over the same period as the related capital assets. Parliamentary appropriations for specific projects are deferred and recognized on the Statement of Operations in the year in which the related expenses are incurred.
- G) Contributions The Corporation follows the deferral method of accounting for contributions.

Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured. Contributions externally restricted are deferred and recognized as revenue in the year in which the related expenses are recognized. Restricted investment income is recognized as revenue in the year in which the related expenses are incurred.

Contributions received in a form other than cash are recorded at their fair value at the date they are received by the Corporation.

Volunteers contribute a significant number of hours per year. Because of the difficulty of determining their fair value, contributed services are not recognized in these financial statements.

3. Cash and Short-term Investments

The Corporation invests operating and restricted funds in the short-term money market. The overall portfolio yield as at March 31, 2000 was 5.11% (1999 - 4.83%). Treasury policies for the Corporation limit investments to instruments held in short-term investments to a maximum of 36 months rated AA or better and guaranteed by the Government of Canada, a provincial government or the Royal Bank of Canada. The average term to maturity is 15 days (1999 – 24 days). The cost of the portfolio approximates its fair value.

4. Restricted Cash and Short-term Investments

Restricted cash and short-term investments include deferred contributions and funds received for the Endowment. Restricted cash accounts are managed in accordance with the donor's wishes and are invested in accordance with investment policies of the Corporation.

5. Collections

The Canadian Museum of Nature holds and preserves invaluable collections of natural history specimens for the benefit of Canadians, present and future. The natural history collections consist of over 10 million specimens and grew by 25,396 items this fiscal year. They are an exceptional scientific resource that is available nationally and internationally for research, exhibits and education.

The collections are divided into four discipline related groups, being:

- the Earth Sciences collection (minerals, rocks, gems, fossils)
- · the Vertebrates collection (mammals, birds, fish, amphibians, reptiles)
- the Invertebrates collection (molluscs, insects, crustaceans, parasites, worms)
- · the Botany collection (algæ, vascular plants, mosses, lichens)

In addition, conservation research is conducted to improve the management of the collections.

6. Capital Assets

(in thousands of dollars)

	Cost	Accumulated depreciation	2000 Net book value	1999 Net book value
Land	505	· _	505	505
Property under capital lease	35,040	3,966	31,074	32,065
Collection cabinets and compactors	3,522	403	3,119	3,220
Computer equipment and software	2,951	2,827	124	337
Research equipment	1,394	1,279	115	145
Furnishings and office equipment	1,283	719	564	656
Leasehold improvements	1,969	1,759	210	201
Technical equipment	312	232	80	91
Motor vehicles	61	39	22	9
	47,037	11,224	35,813	37,229

The Victoria Memorial Museum Building and grounds are owned by the Government of Canada and consequently are not included in capital assets.

7. Capital Lease and Secondary Financing Obligations

The Natural Heritage Building (NHB) houses the Canadian Museum of Nature natural history collections and administrative functions, on the Corporation's site in Aylmer, Quebec.

The Corporation is acquiring the building through a lease purchase agreement with a term of 35 years. It is committed to pay rent under all circumstances and in the event of termination of the lease, at the Corporation's option or otherwise, pay sufficient rent to repay all financing on the building. Management intends to completely discharge its obligation under the lease and obtain free title to the building in 2031. In 1997-98, the Corporation secured financing for the additional construction and fit-up costs of the NHB with the Department of Canadian Heritage.

Future minimum lease and debt repayments, by year and in aggregate, under the financing obligations are as follows:

(in thousands of dollars)

	Obligation under capital lease	Obligation under loan from Department of Canadian Heritage	Total financing obligations
2001	3,500	377	3,877
2002	3 500	377	3 877
2003	3,500	377	3,877
2004	3,500	_	3,500
2005	3,500	_	3,500
Thereafter	92,750	– ,	92,750
Total minimum future payments	110,250 (1)	1,131 (2)	111,381
Deduct: Imputed interest	(76,567)	(46)	(76,613)
Present value of financing obligations	33,683	1,085	34,768

NOTES:

- (1) The amounts payable under the capital lease are based on the fixed interest rate of 9.88%, for a period of 35 years, established at the time of signing the lease.
- (2) The amounts payable under the loan from the Department of Canadian Heritage are based on the fixed interest rate of 4.27%, for a period of 3 years.

8. Deferred Capital Funding

Deferred capital funding represents the unamortized portion of parliamentary appropriation used to purchase depreciable capital assets. Changes in the deferred capital funding are as follows:

(in thousands of dollars)

	2000	1999
Beginning balance	4,171	4,539
Add appropriation used to purchase depreciable capital assets	364	168
Less amortization of deferred capital funding	(588)	(536)
Ending balance	3,947	4,171

9. Deferred Contributions

Deferred contributions represent unrecognized externally restricted donations and investment income. The changes in the deferred contribution balance and the components of this balance are as follows:

(in thousands of dollars)

	2000	1999
Beginning balance	387	323
Add contributions received during the year	232	241
Less amounts recognized in the year	(240)	(177)
Ending balance	379	387
Deferred contributions are comprised of:		
Funds restricted for research purposes	65	72
Funds restricted for programming purposes	283	273
Restricted endowment fund interest	31	42
Total deferred contributions	379	387

10. Endowment

The Corporation maintains an endowment in the principal amount of \$250,000 received from Anne and Henry Howden, which included a significant entomological collection. The endowment was established to enable professional studies and research of entomological collections for the Museum.

The principal of the Systematic Entomology Endowment Fund can not be expended. Accumulated interest earned from the endowment must be expended for specified purposes and the residual balance totalled \$31,070 at March 31, 2000 (\$42,400 at March 31, 1999) which is included in deferred contributions (Note 9). In the event that the Corporation decides not to maintain entomological collections, the Systematic Entomology Endowment Fund shall be transferred, along with any entomological collections, to the Royal Ontario Museum.

11. Commercial Operations

Commercial operations revenue is comprised as follows:

(in thousands of dollars)

	2000	1999
Boutique lease	52	46
Publishing revenues	37	49
Publishing royalties	33	35
Admission fees	449	420
Parking	171	144
Rental of facilities	248	213
Total commercial operations revenue	990	907

12. Parliamentary Appropriation

(in thousands of dollars)

	2000	1999
Appropriation approved	21,658	20,848
Applied as follows:		
Operating expenses	21,772	20,557
Stonework project	_	180
Parliamentary appropriation for operating expenditures recognized on the Statement of Operations	21,772	20,737
Add appropriation used to purchase capital assets	364	168
Less payment to the Department of Canadian Heritage	(377)	(377)
(Decrease) increase in deferred parliamentary appropriation	(101)	320
Total applied	21,658	20,848

13. Net Result of Operations on a Cash Basis

(in thousands of dollars)

			2000 -	1999
Net result of operations:	745	(303)		
Items not involving cash:				
Depreciation of capital asset	S		1,590	1,633
Employee termination benefit	S		155	32
Amortization of deferred capi	tal funding		(588)	(536)
Net result of operations after a	dding items	not involving cash	1,902	826

14. Related Party Transactions

In addition to those related party transactions disclosed elsewhere in these financial statements, the Corporation is related in terms of common ownership to all Government of Canada created departments, agencies and Crown corporations. The Corporation enters into transactions with these entities in the normal course of business.

15. Contractual Commitments

The Corporation has entered into agreements for the provision of services and equipment. The payments under these agreements are approximately as follows:

(in thousands of dollars)

	2001	2002 and subsequent years
Facilities maintenance costs	1,708	-
Systems and infrastructure agreements	661	478
Other commitments	1,027	93
	3 396	571

In 1994, a pay equity complaint was filed by the Public Service Alliance of Canada (PSAC) against the Corporation alleging discrimination in wages based on gender inequity. The PSAC and the Corporation have agreed to develop and implement a Job Classification and Evaluation Plan. This Plan will be used to determine relativity between jobs and will ensure that there is no gender based wage discrimination within jobs at the Corporation. The Corporation cannot determine and assess the outcome of this complaint on its operations. The effect, if any, of the ultimate resolution of this matter will be accounted for in the year when known.

17. Contingency

During the previous year, a sub-contractor of the Corporation received a claim for additional costs regarding the Stonework project at the Victoria Memorial Museum Building. The sub-contractor is now reviewing the claim for its legitimacy. The Corporation cannot determine and assess the outcome of this claim on its operations. The effect, if any, of the ultimate resolution of this matter will be accounted for in the year when known.

18. Comparative Figures

The 1999 comparative figures have been reclassified to conform to the 2000 financial statement presentation.