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CANADIAN MUSEUM OF NATURE  
ANNUAL REPORT 1999-00

**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*



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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.

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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.

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{ LEADERSHIP }





{ CANADIAN }



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](http://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.

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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.

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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.

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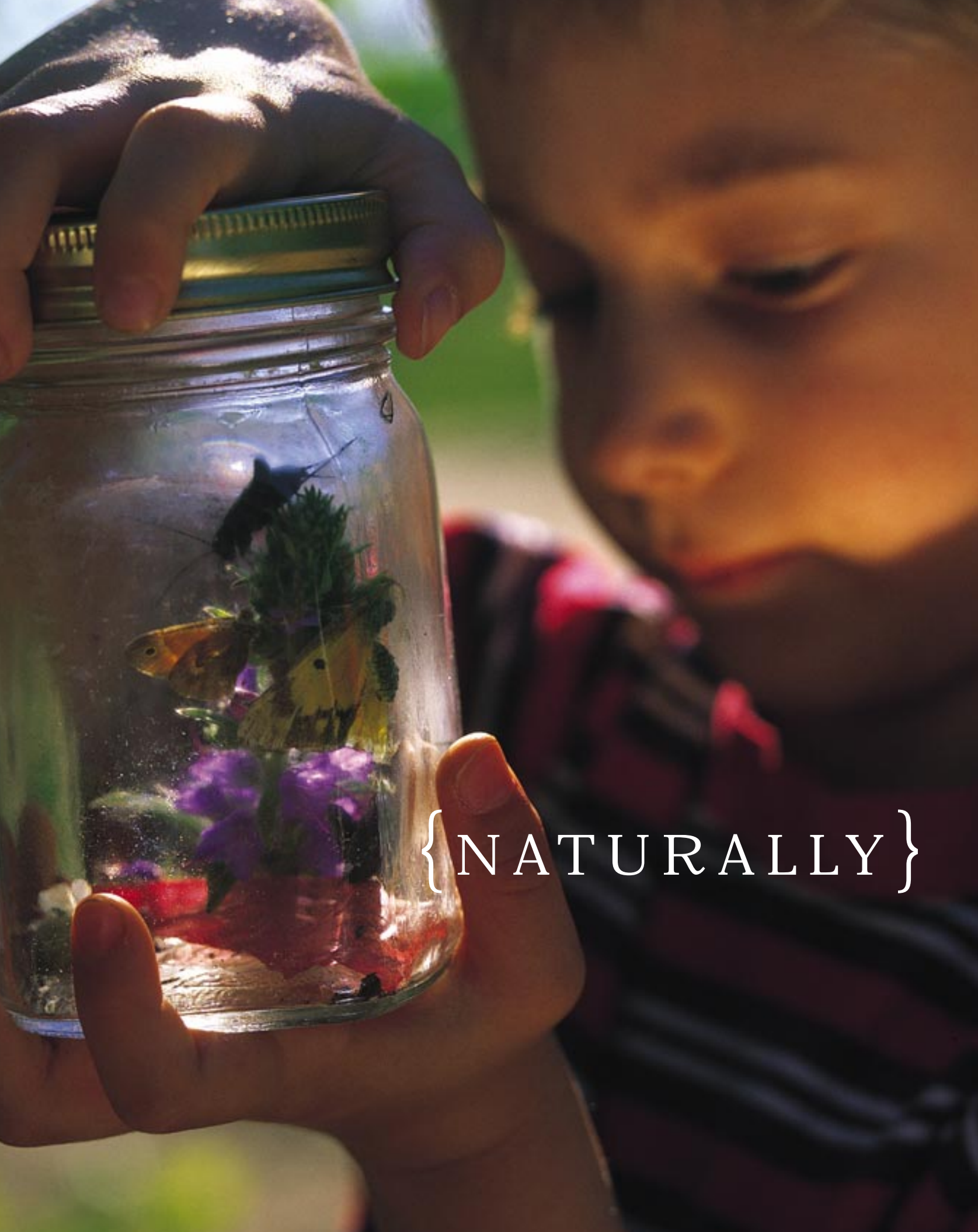
ACTION: A 21<sup>ST</sup> CENTURY MUSEUM IN A HERITAGE VICTORIAN "CASTLE". OUR VISITORS GET THE BEST OF PAST AND FUTURE. AT THE CMN WE'RE OFFERING VISITORS MODERN EXPERIENCES – FROM COMPUTER INTERACTIVES TO A LIVE RADIO BROADCAST – IN THE WONDERFUL HERITAGE AMBIENCE OF ONE OF OTTAWA'S PREMIER LANDMARKS.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

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{ EFFECTIVE }



{ NATURALLY }

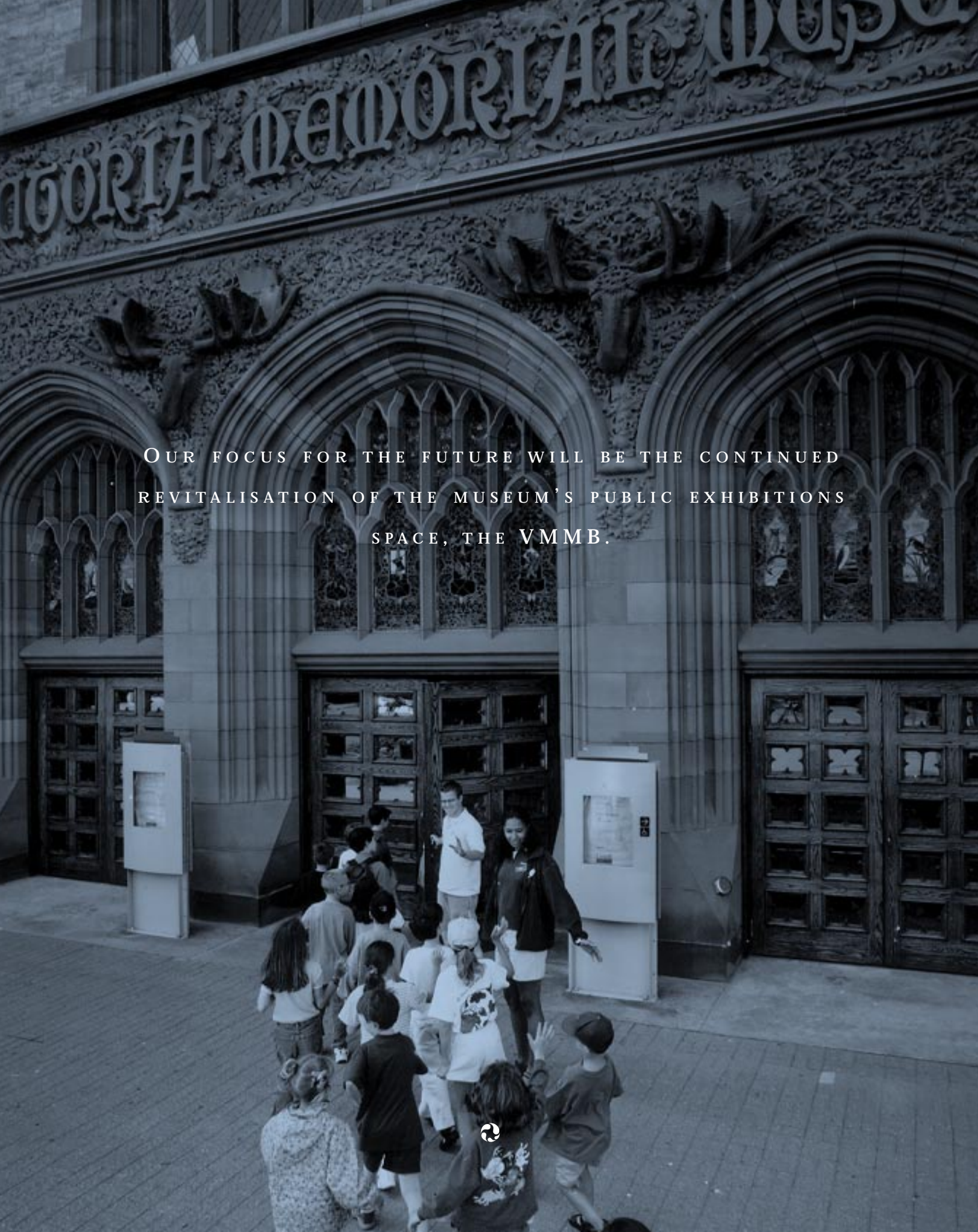
We continue to focus on sharing the wonders of the natural world with Canadians. It's something we do yearly with millions of Canadians. And the numbers are growing. Which is why we're offering new ways to enjoy and understand our natural heritage. Our first millennium exhibition, finders and keepers, 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 learning comes naturally.

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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.

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OUR FOCUS FOR THE FUTURE WILL BE THE CONTINUED  
REVITALISATION OF THE MUSEUM'S PUBLIC EXHIBITIONS  
SPACE, THE VMMB.



## CHAIRMAN'S REPORT



A handwritten signature in black ink, appearing to read 'Frank Ling'.

**Frank Ling**

*Chairman of the Board of Trustees*

*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.

# 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 prestigious award for *Megalodon: 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.

A black and white photograph of a beetle being held by tweezers. The beetle is the central focus, showing its segmented body and legs. The tweezers are positioned at the top, gripping the beetle. The background is a blurred laboratory setting with a person's hand visible on the right side. The overall tone is scientific and precise.

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 INTEREST 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.

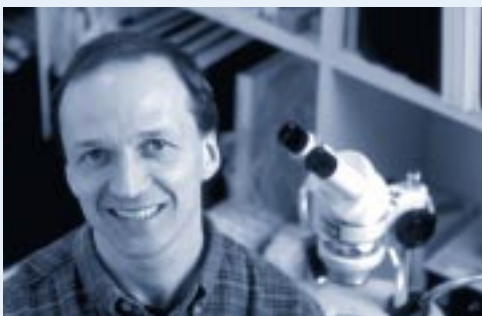
Teamwork is key to achieving both our annual and long-term goals. A Board of Trustees governs CMN and reports to Parliament through the Minister of Canadian Heritage. The President, the Vice-President and the Directors and Managers responsible for strategic operating areas ensure the effective operation 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 top-notch 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 kenerlyi* 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 listserv 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 palaeobotany 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 post-graduate research in systematics. Other ongoing partnerships included the Canada-Mexico Student Exchange Program co-sponsored 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 3<sup>rd</sup> 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 palaeontologists in international journals and two biannual newsletters with an international circulation, *Canadian Palaeobiology* and *Canadian Zooarchaeology*, 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 palaeo 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 Palaeogene 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](http://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](http://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 palaeo 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 for 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. Michael Caldwell on potential scientific discoveries of the 21<sup>st</sup> 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.

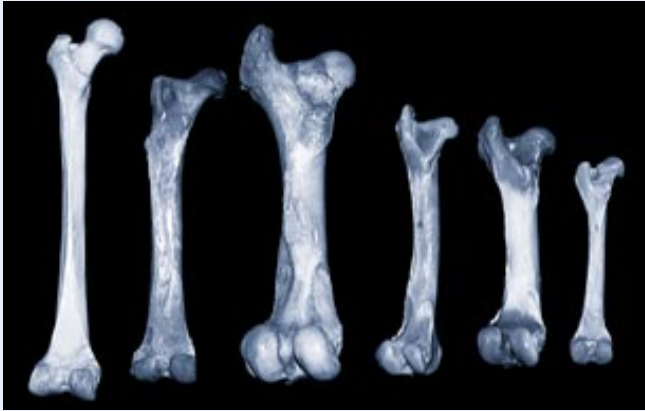
Dr. Irwin Brodo completed the manuscript of *Lichens of North America*. Yale University Press is preparing it for publication. Work continued on *Hunting Lost Worlds*, a book by Dr. Michael Caldwell on the evolution of palaeontological ideas. Contracts were signed with a new co-publisher, Kids Can Press 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) <sup>(1)</sup>	4,815,000	345,000	+ 1,295.65%
Unique Web site visits <sup>(2)</sup>	1,312,428	371,184	+ 253.58%
Travelling Exhibits	119,000	83,000	+ 43.37%
Purchase CMN products <sup>(3)</sup>	72,318	153,000	-52.73%
Number of school group visits <sup>(4)</sup>	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 <sup>(5)</sup>	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.
- (3) 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.
- (4) 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.
- (5) 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 16<sup>th</sup> 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-Volkswagen 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 acquiring 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 22<sup>nd</sup> 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 *Scarabaeoidea* 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 CONFERENCE 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

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Allen Alexander  
Noel Alfonso  
Danielle Allard  
Robert Anderson  
Marie-Claude Asselin  
Stuart Baatnes  
Tony Badmus  
Darlene Balkwill  
Anne Marie Barter  
Lory Beaudoin  
Micheline Beaulieu-Bouchard  
Julie Beaumont  
Alain Bélanger  
Danièle Bélisle  
Nathalie Benoit  
Jacob Berkowitz  
Florence Bernard  
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Nancy Boase  
Anik Boileau  
Agnes Bonk  
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Sherri Brown  
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Carol Campbell  
Nathalie Carter  
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Sylvain Charette  
Stéphane Charlebois  
Agnès Chartrand  
Wendi Cibula  
Brian Coad  
Michèle Comtois  
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Kathleen Conlan  
Laurie Consaul  
Wilda Corcoran  
Guy Cousineau  
Jason Coyle  
Marissa Croteau  
Stephen Cumbaa  
Fiona Currie  
Jacek Czapiewski  
Darrell Daniels  
Hugh Danks  
Richard Day  
Kim de Grandpré

Roger Demers  
Mathieu Deshaies  
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Margaret Feuerstack  
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Lucille Fournier  
Peter Frank  
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Kurt Holmes  
Morag Hutcheson  
Heather Hutt  
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Katherine Julien  
Catherine Kempton  
Clayton Kennedy  
Sean Kennedy  
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Mireille Khacho

Tyler Klein  
John Kubicek  
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Patrick Minns  
Thérèse Mitrow  
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Mary Rose Saccu  
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Susan Swan  
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Sarah Voyer  
Joyce Wallace  
Kevin Wallace  
Robert Waller  
Michael Wayne  
James Wilkinson  
Bruce Williams  
Anne Winship  
Louise Winter  
Pak Wong  
Heidi Zoethout

# 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

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## 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

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**Thomas Nash III**, Department of Plant Biology, Arizona University, Tempe, Arizona

**Nate's The Place Next Door**, Ottawa, Ontario

**National Archives of Canada**, Ottawa, Ontario

**National Gallery of Canada**, Ottawa, Ontario

**Nature Boutique**, Ottawa, Ontario

**Nature's Cupboard**, Ottawa, Ontario

**Ken Nicholls**, Sibald Point Provincial Park, Ontario Ministry of the Environment, Sutton West, Ontario

**Novotel Ottawa Hotel**, Ottawa, Ontario

**Walter Obermayer**, Institut für Botanik, Karl-Franzens-Universität, Graz, Austria

**OC Transpo**, Ottawa, Ontario



#### **MEGALODON SWIMS TO THE TOP**

**Megalodon: the Prehistoric Shark**, co-authored 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.

**Phyllis Odenbach Sutton**, Ottawa, Ontario

**G. R. Olivo**, McGill University, Montreal, Quebec

**L'Orée du Bois**, Chelsea, Quebec

**Ottawa Chamber Music Festival**, Ottawa, Ontario

**Ottawa Citizen**, Ottawa, Ontario

**Ottawa Congress Centre**, Ottawa, Ontario

**Frank Parent**, Ottawa, Ontario

**Passionate Vision**, Toronto, Ontario

**Jeffrey Patterson**, University of Calgary, Calgary, Alberta

**Paul's Boat Line**, Nepean, Ontario

**Stewart Peck**, Ottawa, Ontario

**La Pergola de Paris**, Vanier, Ontario

**The Perrier Group of Canada Ltd.**, Concord, Ontario

**Natalie Peterson**, Laurentian University, Sudbury, Ontario

**V.V. Petrovsky**, V.L. Komarov Botanical Institute, Russian Academy of Sciences, Leningrad, Russia

**Michel Picard**, Osgoode, Ontario

**Pilon Office Supplies**, Ottawa, Ontario

**Dennis Price**, Stelco, Hamilton, Ontario

**Prime Property Management**

**Prinzo Catering**, Ottawa, Ontario

**Prostate Cancer Association**, Ottawa, Ontario



## 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.

**Josée Quenneville**, Rockland, Ontario  
**Ramada Hotel & Suites**, Ottawa, Ontario  
**Brett C. Ratcliffe**, University of Nebraska State Museum, Lincoln, Nebraska  
**Region of Ottawa-Carleton**, Ottawa, Ontario  
**Monty Reid**, Luskville, Quebec  
**Caroline Relf**, Department of Indian and Northern Affairs, Yellowknife, Northwest Territories  
**Les Restauronics**, Aylmer, Quebec  
**Rideau Centre**, Ottawa, Ontario  
**Rideau Environmental Action League**, Smiths Falls, Ontario  
**Enid Robbins**, Ottawa, Ontario  
**George W. Robinson**, A. E. Seaman, Mineral Museum, Michigan Technological University, Houghton, Michigan  
**Royal Bank of Canada**, Ottawa, Ontario  
**Royal Botanical Gardens**, Hamilton, Ontario  
**Royal Ontario Museum**, Toronto, Ontario  
**Elizabeth Ruch**, Ottawa, Ontario  
**Salon de quilles Anik**, Hull, Quebec  
**Richard Seaborn**, Ottawa, Ontario  
**Louis-René Sénéchal**, Aylmer, Quebec  
**Kieran Shepherd**, Carp, Ontario  
**Sheraton Ottawa Hotel**, Ottawa, Ontario  
**Ski Mont-Cascades**, Cantley, Quebec  
**Société de transport de l'Outaouais**, Hull, Quebec  
**Somerset Pub**, Ottawa, Ontario  
**Lynda Southam**, Brinston, Ontario  
**Tim St. Jean**, Ottawa, Ontario  
**Michèle Steigerwald**, Nepean, Ontario  
**Les Suites**, Ottawa, Ontario  
**Suno-Tech Inc.**, Ottawa, Ontario  
**Surgenor Pontiac Buick Ltd.**, Ottawa, Ontario  
**Peter Tarassoff**, Beaconsfield, Quebec  
**Tea & Tole**, Aylmer, Quebec  
**TelAV Audio Visual Services**, Ottawa, Ontario  
**Third Avenue Spa**, Ottawa, Ontario  
**Lucille Thomas**, Hull, Quebec  
**Lisa Thuell**, Manotick, Ontario

**Trattoria Italia Restaurant**, Ottawa, Ontario  
**Travelodge Hotel Ottawa West**, Ottawa, Ontario  
**Judith Umbach**, Calgary, Alberta  
**Université du Québec à Montréal**, Montreal, Quebec  
**Josef Vajdak**, Pequa Rare Minerals, Massapequa, New York  
**Rudy Van Der Klip**, Roleystone, Western Australia, Australia  
**Jean Veillette**, Aylmer, Quebec  
**Seef Vermaak**, Impala Platinum Ltd, Rustenburg, Republic of South Africa  
**Via Rail Canada Inc.**, Montreal, Quebec  
**Victoria Park Suites**, Ottawa, Ontario  
**Ville d'Aylmer**, Aylmer, Quebec  
**Wallack Galleries**, Ottawa, Ontario  
**Robert Waller**, Ottawa, Ontario  
**The Westin Hotel Ottawa**, Ottawa, Ontario  
**Quintin Wight**, Ottawa, Ontario  
**Bruce Williams**, Ottawa, Ontario  
**Anne Winship**, Wakefield, Quebec  
**Louise Winter**, Russell, Ontario  
**Pak Yau Wong**, Ottawa, Ontario  
**Emily W. Wood**, Harvard University Herbaria, Cambridge, Massachusetts  
**Your Independent Grocer**  
**Joan Zimmerman**, Santa Cruz, California

## Collaborators

**K. Aaris-Sorensen**, Zoological Museum, University of Copenhagen, Copenhagen, Denmark  
**Teuvo T. Ahti**, Botanical Museum, University of Helsinki, Helsinki, Finland  
**A. Albino**, Universidad Nacional de Mar del Plata, Mar del Plata, Argentina  
**Archer-Cathro Ltd.**, Whitehorse, Yukon  
**J.S. Ashe**, Polar Continental Shelf Project, Ottawa, Ontario  
**K. Bachenbach**, University of Kansas, Lawrence, Kansas

**B. Baldwin**, Simon Fraser University, Burnaby, British Columbia  
**R. Baldwin**, St. Lawrence University, Canton, New York  
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**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 Comahúe, 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

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**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

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**Embassy of Peru**, Ottawa, Ontario  
**Expatriate Resources**, Whitehorse, Yukon

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**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

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**R. Gotthardt**, Heritage Branch, Government of Yukon, Whitehorse, Yukon

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**R.C. Harris**, University of Windsor, Windsor, Ontario

**T. Harrison**, New York University, New York

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**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

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**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

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**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 Newfoundland, 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 Lumsch**, 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. Mustoe**, 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**, Institut 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. Prydzial**, Murdoch University, Australia

**J.-C. Rage**, Muséum 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 Palaeontologist, 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

**V. Tait**

**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 Palaeontology, Drumheller, Alberta

**J. Yellen**, National Science Foundation, Washington DC

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

## VOLUNTEERS

Clémence Ahounou  
Cliff Anderton  
Paul Andrews  
Melba Angell  
Lorne Atchison  
Celina Bak  
Clare Barrans  
Audrey Barrass  
Elizabeth Boileau  
Catherine Borza  
Irène Boucher  
Michaël Bousada  
Pat Bowen  
Colin Bowen  
Carole Brown  
Claudia Burns  
Daniel Bush  
John Cameron  
Louise Campagna  
Phil Campbell  
Isabelle Carigman-Chagnon  
Mélicca Carpentier  
Harold Chase  
Ricky Choquette  
Chantal Cloutier  
John Coltes  
Adam Cooke  
Malcolm Coupe  
William Creelman  
Wheting Dan  
Gretchen Denton  
Naomi DeSilva  
Martine Deslauriers  
Mireille Deussing  
Wendy Dion  
Heather Duthie  
Frank Dyson  
Bob Emmerson  
Phyllis Esdon  
Anna Filk  
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Jack Hall  
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Adeline Hardie  
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Mimi Hoang  
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Peggy Holton  
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John Hunt  
Betty Anne Hurst  
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Sol Kaiman  
Lynn Kaplansky  
Carmel Kasper  
Robert Kelly  
Vivien Kemeny  
Nathan Klein  
Pauline Klosevych  
Thomas Kurys  
Judy Leeson  
Diane Lemieux  
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Isabelle Lesage  
Jean-Francois Létourneau  
Barbara Liddy  
Monika Lieberenz  
Kathleen Liver  
Andrew Logan  
Jessie Love  
Nancy Luc  
Nicole Lupien  
Eloise Lupien-Dufresne  
Lori Macadam

Mollie MacCormac  
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  
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Dale Patten  
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Eva Peralta  
Panyada Phandanouvong  
Lisa Plitz  
Brigitte Pombert  
Nancy Ponce  
Violeta Ponce  
Zaire Puil  
Joyce Quince  
Debora Quayle  
Clifford Quince

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 Zelency