There is something new at MPE !

Two students, one volunteer, one boss !

No, this is not the title of a new Sergio Leone movie coming soon to a theatre near you, but rather the situation the lab was experiencing this summer. There has never been so much action at the Laboratory for conservation and research – MPE since its inauguration in 2005, all under the direction of the "boss," Mario Cournoyer.

In the June 15th, 2010 bulletin, we announced the hiring of Emeline Raguin for the summer to help us catalog the collection. A few days after the beginning of her employment, we received a call from Ottawa notifying us that she was not eligible for the Canada Summer Job 2010 program, being not a landed immigrant. As she worked very well, we kept her thanks to an $8,500 impromptu donation from Jean-Pierre Guilbault, our vice president. Since we were still entitled to our grant from Canada Summer Job, we hired the second candidate we interviewed: Vanessa Jetté. Vanessa completed her Master's in museum studies at the University of Montreal. During her studies, she helped design the Gallery of the Earth (mineralogy) at the Canadian Museum of Nature in Ottawa. This summer, she designed both a concept and a scenario for our planned "gallery of paleontology". She also planned the basis for the "gallery of evolution". These elements will be very useful for our upcoming planning efforts.

Emeline Raguin (left) cleans fossils while Chuck Billo (centre) and Jean-Pierre Guilbault (right) translate the June bulletin of the MPE and Vanessa Jetté (background) works on the concept and scenario of the paleontology gallery.

In the meantime, Emeline catalogued 10,013 specimens in collaboration with Mario! This brings the total to 26,000 specimens catalogued, that is to say, more than half of the collection. We still have to identify the specimens we think might be useful for our future exhibits, and we need to photograph them for our database. Emeline also catalogued 3,558 documents for the library, thus sorting out most of the donations (books, bulletins, geological reports and reprints) we received last winter and at the same time, organizing our library.

Furthermore, a volunteer, Chuck Billo, did a great job processing samples that have accumulated through the years. Fossiliferous samples from the Eocene of Texas and France, or from Nicolet Shale from Saint-Lambert have been cleaned, sorted and prepared for cataloging. A tedious work that continues because Chuck still comes regularly to the laboratory and hopefully will do so for a long time.

Mario and Jean-Pierre along with both students visited the Sherbrooke Nature Science Museum. First, we revisited the exhibition "Dinosaurs & Co", a traveling exhibition on which the Sherbrooke Museum and the MPE have collaborated. It was open during the whole summer in Sherbrooke. It was an opportunity for Vanessa to see what we wanted to do and not do in the future MPE. We met the director, Ms. Bibeau, and glanced at the permanent exhibitions and the new multimedia show: Terra Mutantès.

We also visited the Canadian Museum of Nature in Ottawa. Present were: Mario, Jean-Pierre, Michel Chartier, Emeline and Vanessa. We visited all galleries and met with some of Vanessa's colleagues, particularly in the Gallery of the Earth (mineralogy). All the galleries were interesting, though individually we have been impressed differently depending on the gallery.

Emeline, Vanessa and Chuck Billo spent one day excavating with Mario at the Rivière-aux-Hurons section, just to get acquainted with the nature of fieldwork.

J.-P. G. and M. C.

People we visited

As mentioned above, Jean-Pierre, Mario, Vanessa and Emeline paid a visit to Sherbrooke Nature Science Museum on June 29, 2010. On site, they were received by the director, Ms. Marie-Claude Bibeau. The meeting was useful. Ms. Bibeau confirmed what they already knew since their visit to Trois Rivières (see: The Whale of Daveluyville), that is, avoid being too optimistic and hiring a lot of personnel because we might end up on the edge of bankruptcy after a year or two. However, it is necessary to invest in youth-oriented activities, as it is the only way to compensate for declining subsidies.

On October 27, Mario and Jean-Pierre went to the *Musée des ondes Emile Berliner* in St. Henri and met its leaders, in particular Mr. Jean Bélisle, president and Mr. Pierre Valiquette, treasurer. This museum has a few points in common with us. On one hand, the people in charge are all volunteers (though mostly retired) and secondly, it is located the same neighbourhood as us and so there is a possibility of synergy, even though our fields of interest are different.

This is also the opinion of Mr. Jean-Paul Desjardins, director of *Desjardins Marketing Stratégiqu*e. Indeed, the *Musée Berliner* is at the stage of making its business plan, and it has the same consultant as we do, i.e., *Desjardins Marketing*.

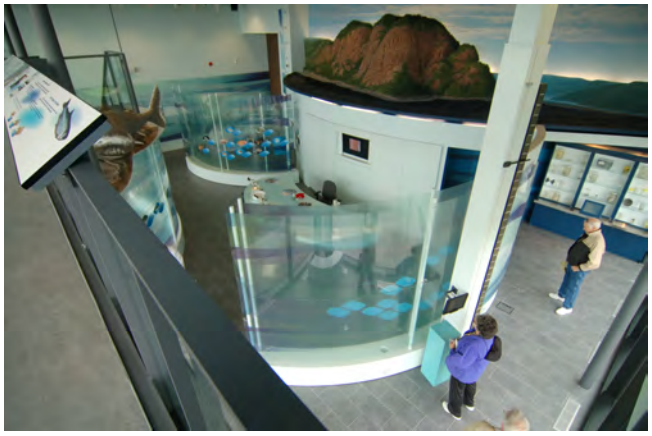
Jean-Pierre Guilbault (left) and André Lévesque (center) examine a rock slab containing fossils at the *Musée René Bureau*, Laval University.

On a third level, the challenges the *Musée Berliner* is facing, are very different from ours. They must preserve a building that, by itself, has a museum value, which leaves them no choice of location.

From September 13 to 21, Mario and Jean-Pierre toured museums and interpretive centers in eastern Quebec. They visited the *Musée René Bureau* at Laval University, the *Musée du Fjord* at La Baie (Saguenay), the *Jardin des glaciers* in Baie Comeau, and the museum at *Parc de Miguasha* in the Gaspé region. They also met Richard Cloutier at the Biology Department of the University of Quebec in Rimouski (UQAR).

The Musée René Bureau is the custodian of a collection of minerals and fossils belonging to Laval University, exposed in a series of showcases set up the corridors of one of the university's pavilions. One man, Mr. André Lévesque, is in charge of the Museum. When he retires in about 2 years, the university will decide whether to hire a new head... or else, we don't know. The *Musée René Bureau* holds about 40,000 minerals and fossils. It is therefore a major museum in our province and its disappearance would also be a major loss. Regarding the possible loan of specimens, André Lévesque sees no problems. Note that the *Musée René Bureau* has a few specimens of fossil plants from the Cretaceous of Schefferville. It also holds several specimens donated by well-known Quebec collector Pierre Gonin.

The *Musée du Fjord* is a general interpretive center for the Saguenay region. It deals with culture and history, and there is a marine science component.

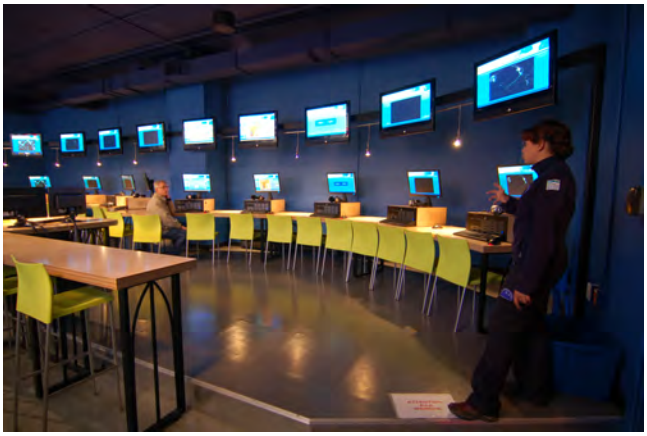


The "*Science Fjord*" hall on the marine environment at the "*Musée du Fjord,*" La Baie, Saguenay.

People we visited (cont.)

The museum was badly damaged by the 1996 flood and was upgraded greatly thanks to the energy of its director, Ms. Guylaine Simard. It is obvious when speaking with Ms. Simard as well as with Mr. Bouchard of the *Jardin des glaciers* (see below) that away from the Montreal area, it is much easier to mobilize everyone around a project. By everyone, we mean elected officials, the business community, and various agencies. Everyone knows everyone and feels, to a certain point, solidarity with one another. It is likely that we have to restructure our board of directors to include one or more representatives from the Southwest borough's business community and municipal government. The *Musée du Fjord* is an architectural success, even though its director admits that the exhibition halls are a bit small, especially when children's groups have to be steered around.

The *Jardin des glaciers* is much more of an interpretive centre than a museum. It is possible to take guided tours by kayak (3 people per guide, so it is expensive) and practice extreme sports. But the indoor parts also deserve our attention, for example, a room with computers where one can ask questions, explore issues, etc. Note that this part of the organization is housed inside a disused church. Thus, all local resources have been mobilized. Moreover, we can retain from our visit the dynamism of the director, Mr. Christian Bouchard, and the dedication of his team. One conclusion is that one should not be shy to rally as many people as possible. Mr. Bouchard has had to cope with a community that conceived development in terms of heavy industry.



The "Multimedia Experience and Research Room" at *Jardin des glaciers*, in Baie Comeau.

In the Montreal South-West, heavy industry has been in ruins for a long time and in this sense, attitudes have already begun to change, but to make people understand the importance of paleontology...? Note that the *Jardin des glaciers* has an advantage over us: it has a natural site to exploit. Finally, the people at the Jardin des Glaciers want us to help them in the research and identification of fossils, in case we might find vertebrate remains.

We (Mario and Jean-Pierre) went to Gaspé where we met Mr. Christian Rioux, president of the *Club d'amateurs de minéraux et fossiles de Gaspésie*. Unfortunately, the meeting was arranged at the last minute and no other club member could attend. The club seemed active and Christian seemed aware of a large number of sites. So far, the MPE has hardly touched the Gaspé region, which is a key area for the paleontological heritage of Quebec. A local group such as CAMFG will be an indispensable ally for research in this area. For details about visited sites, see "Field Work in 2010."

At Miguasha, we met the director, Mr. Rémi Plourde (historian by training) and two paleontologists, Mr. Olivier Matton and Ms. France Charest, as well as technicians. The possibility of borrowing specimens does not seem problematic. Technical advice from the staff will be helpful. Mr. Plourde explained the development of his museum and the current problems. Sépaq, owner of the museum, is a Crown corporation like Hydro-Quebec, and the Museum's development is largely a function of involvement (for funding) or non-involvement (for freedom of action) of the provincial government. The Miguasha Museum was upgraded in recent years.

JasonWillet (left), technician and France Charest (right), curator in the laboratory at the Miguasha Museum of Natural History.

People we visited (end)

Unfortunately, like the *Musée du Fjord*, it suffers from a certain lack of space, especially when it comes to receiving groups. By contrast, the museum gift shop seemed well stocked and interesting. The Miguasha Museum is a real scientific institution involved in research. The *Jardin des glaciers* and the *Musée du Fjord* both have links with the scientific community, but research is not among their activities. Note that the director at Miguasha is not a scientist: our future director might perhaps not be a scientist either.

We will end this article with our visit to the *Université du Québec à Rimouski* (UQAR) where we met Professor Richard Cloutier (pictured), although in reality we went there before Miguasha. Richard teaches biology and evolution at UQAR. He specializes in fossil fishes and the onset of the first tetrapods during the Devonian. He is one of the few specialists in the field of evolution in Quebec and a very capable popularizer. Richard received us on Friday morning: it is the only time he is available. He actually seemed very busy with both professional and volunteer activities. Our museum project and its gallery on evolution really turned him on, and he offered to get involved, though under well-defined conditions. We accepted and, barring a last minute disaster, Richard Cloutier will design our gallery of evolution. J.-P. G.

Book donation

On Saturday September 11, 2010, Jacques Letendre, geologist and member of the MPE, paid a visit to the laboratory and dropped off seven boxes full of books. Those were bulletins and reports from the Geological Survey of Canada and the Ministry of Natural Resources of Quebec, periodicals such as Journal of Paleontology, plus other documents about geology and paleontology. In a former life, Jacques did a masters thesis (completed in 1976) on the trilobite family Phacopidae, under the direction of the late Pierre Lespérance; this is why he had these documents. Later on, he became interested in diamonds, fascinating stones due to their unique nature and to the complexity of their fomation. Jacques even likes to make a parallel between both subjects (diamonds and fossils) in that fossils are remains of individuals and each is unique by itself, and so are diamonds.

Another important addition to the MPE's library, which is getting more and more filled up! M. C.

New blood at MPE

Since early summer 2010, we feel a wind of change blowing on the MPE, especially from young university students who have become members, starting with our two summer students, Emeline Raguin, doctoral student in anthropology at the University of Montreal (UdeM), and Vanessa Jetté who holds a masters degree in museum studies also from UdeM. Both expressed their interest to maintain contact and help with various tasks at MPE on a volunteer basis.

Another member, Chuck Billo, comes regularly and does laboratory work such as processing fossil-rich samples and preparing them for cataloging. Lucien Zaba, accounting student at *Ecole des Hautes Etudes Commerciales* and spouse of Emeline, offered his services as a member on our board of directors.

Alexandre Guertin, a masters student at the Department of Geography at UdeM under the supervision of Professor Pierre Richard, is interested in ancient palynology, the study of fossil pollen and spores. He helps with the cataloguing and photography of our fossil collection. Finally, Amy Vandal, a student in museum studies at UdeM, focuses on natural history collections, especially paleontology. She is really excited about the prospect of helping us with various aspects of conservation: the organization, the choice of supplies and tools and the development of a conservation policy.

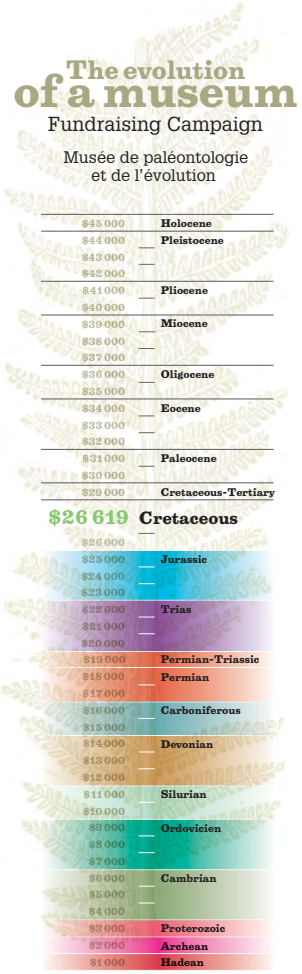
This renewal among our members shows there is a definite interest for the opening of the MPE in Montreal and is an encouraging sign that the science of paleontology is doing increasingly well in Quebec. M. C.

Chuck Billo identifying fossils of Eocene age from Texas.

Fundraising campaign "A quickly evolving museum"

Following the overwhelming success of the fundraising campaign as well as some unexpected, but still essential, expenses last summer, we decided to raise the target by $5,000. So the total is now $45,000, which adds degrees to the thermometer we use in our e-mailing.

Dated December 1st, 2010, the thermometer reads $25,344, but in reality the total raised to date is $28,851.73. Why the discrepancy? Simply because we decided to separate the major donation ($8,507.73) from the Canadian Geological Foundation into eight slices of $1,000 each and that the thermometer announcing $25,344 is the fifth in this series. And for those who take the time to read the saga that accompanies each shipment, this means more space to tell the long history of evolution of life on our planet (these texts are written by our Vice-President, Jean-Pierre Guilbault). M. C.



A $1,000 donation and a recommendation letter

During the summer of 2010, we received a donation of $1,000 from the Southwest Borough of the City of Montreal. Indeed, Mr. Benoit Dorais, Mayor of the Borough, has sent us this contribution that the borough council had voted to grant us.

Moreover, Mayor Dorais and his team sent us a letter supporting the MPE's project of opening a museum in the Southwest Borough. He writes: "This project, as it was presented to me, will favor job creation while being innovative in the field of evolution and paleontology in Quebec. In addition, it meets the will of the borough to be a partner and a significant player in the fight against school drop-out thanks to the educational aspects of the MPE's vocation and to the possibility of eventual links with schools of the borough."

And he continues, "I very readily support the Museum of paleontology and evolution in its move, especially since we are collaborating, in the location considered, on the project of a cultural corridor bordering the Lachine Canal. The completion of the museum project would certainly be seen as positive."

In its 2009-2013 Action Plan, the Southwest Borough has given itself a goal to support culture and knowledge. The goals of our museum project are perfectly consistent with those of the borough. M. C.

The whale of Daveluyville

In 1947, the skeleton of a whale was discovered in the Champlain Sea clay at Daveluyville (St-Lawrence Lowlands). The discovery was reported in 1950 by J.W. Laverdière (*Naturaliste Canadien*, 77: 271-282). The specimen described there (and incompletely illustrated) had the majority of its parts, almost all the vertebrae (45), the skull, jaw, ribs and one fin. These bones "vanished from public view" and reappeared in 1980 in the Archaeological Museum of the University du Québec à Trois-Rivières (UQTR). We say "reappeared" because the skeleton is listed in an article by C.R. Harington in 1981 (*Trail & Landscape*, 15: 1-56). Indeed, a personal communication from Mr. René Ribes, director of the Archaeological Museum of UQTR, quoted in Harington's paper, notes that the skeleton of the Daveluyville whale is preserved in the Archeological Museum's collections. However, it is not clear from the description of the skeleton how many vertebrae are present: Mr. Ribes mentions only the atlas (cervical vertebra) as well as a few centrums.

When we look at the inventory records of the showcases exhibited at the Archeological Museum of the UQTR during the early 1990s, we see that the whale's skeleton is missing most of the 45 vertebrae previously listed. Somewhere between 1950 and 1990, the vertebrae disappeared!

In the spring of 2010, Mario Cournoyer decided to trace back the Daveluyville whale with the hope of displaying it in the future "gallery of paleontology" of the MPE, an investigating work he wanted to do for more than a decade. After a few calls, his investigation led to the *Musée québécois de la culture populaire* (MQCP) in Trois Rivières. In fact, by 1995, the archaeological collections of the UQTR were transferred to the MQCP. Mr. Guy Coutu, curator, confirmed that the fossil whale was indeed in their collections and that many bones were in good condition and still packed (as a result of the dismantling of windows in the late 1990's), but there were also two boxes which contained fragments of vertebrae, ribs, etc.

The direction of the MQCP, as well as Mr. Coutu, agreed to loan us the Daveluyville whale for a period of five years with the possibility of a transfer to the MPE when we will have a permanent base, open to the public.

Michel Chartier (left) and Mario Couornoyer (right) unpacking the bones of the Daveluyville whale. In the foreground, we can see a 1.5-m part of the jaw plus another jaw fragment. Behind, we can see the skull fragment.

The numerous skeleton fragments are spread on trays. Quite a challenge waiting for MPE members who will try to reconstruct the skeleton!

The whale of Daveluyville (cont.)

Furthermore, the MPE proposed to restore the skeleton, to the best of their ability, considering the state of the skeleton and the fact that many bones are missing. Mario Cournoyer and Jean-Pierre Guilbault therefore went to Trois Rivières on November 10, 2010, to recuperate the available "parts" of the whale and bring them back to the laboratory in Montreal, where members will be able to see it at the next general assembly. The parts include a portion of the skull, half of a lower jaw, several ribs, the atlas, a scapula, a few vertebrae and intervertebral discs. There were also some undetermined bones and two boxes full of fragments, often very small. In short, a large part of the skeleton described by Laverdière is missing.

Meanwhile, Mario will conduct an investigation to locate the missing bones. He managed to contact Mr. René Bureau, who used to be in charge of conservation at the *Musée de géologie René Bureau* of Université Laval (evidently nammed after him). Mr. Bureau was part of the team who described the Daveluyville whale in 1950. He is the only living person who has followed the adventures of this remarkable fossil. Interesting developments in perspective! M. C.

At centre, we see a few ribs, either fragmental or nearly complete. At the upper right: some of the vertebrae. Left of the ribs, both scapulae and further left, the atlas (cervical vertebra). Finally, at far left, a part of the skull.

Business plan

We have talked about starting the business plan since about 1 year. At a meeting with Charles Gagnon in January 2010, we learned that the plan had to be completed and technical studies started by January 2011. Then we had doubts. Were we ready to go? Were we ready for a 10,000 ft^2 museum? Was our mission well conceived? Finally, we got decided and we jumped. In June, Steering Committee members (Mario Cournoyer, Jacques Lachance and Jean-Pierre Guilbault) met Charles Gagnon in the RESO (*Regroupement Économique et Social du Sud-Ouest*) offices to launch the plan. Unfortunately, it was the summer vacation and not everyone would be available. It would be necessary to wait until September. In September, there was no meeting: first, we had to prepare a scope statement and send it to potential consultants. The scope statement was sent to 9 firms, some of which we had already solicited for the strategic plan.

Then, Mario and Jean-Pierre traveled to eastern Quebec. When they returned, they found two positive responses: one from *Desjardins Marketing*, which designed the strategic plan, and another from GID design, which we had been recommended to us during our trip. The GID proposal was much more expensive and did not seem superior. In late October, the steering committee returns to RESO to meet Charles Gagnon (the first meeting since June and the second-only since January) and formally decides to award the contract to Desjardins Marketing. Meanwhile, we asked *Desjardins Marketing* to add more consultant/steering committee meetings to the project schedule because we believe it is necessary to monitor closely the consultant during his work.

Finally, and importantly, Professor Richard Cloutier from *Université du Québec à Rimouski* will be associated to the project for the design of the "gallery of evolution". He will be paid separately by the MPE. The design of this gallery is a puzzle, especially since the formula we seek is quite innovative. It is therefore necessary to find an expert in the field of evolution to join the project, in particular, one who has experience in the field of museums. We believe we have found the right man in the person of Richard.

The first preparatory meeting for the project will be held in Quebec in the offices of *Desjardins Marketing* on December 3. Work on the plan should begin in January and be completed in late May/early June.

Business plan (cont.)

The total project costs including taxes will be a little over $36,000. We expect the RESO (through FESSO, *Fonds d'Economie Sociale du Sud-Ouest*) to provide $20,000. We hope to receive a loan of $5,000 from the RISQ (*Réseau d'Investissement Social du Québec*). The loan would be repayable only if the project is implemented. The remaining $11,000 would be borne by the MPE. We will have to revive the fundraising campaign that has stagnated since roughly July. Mario is planning to start having meetings with the borough's business district. J.-P. G.

The MPE is online !

In the Mid-Internettian, geological period we live in, an organization can claim to exist only if it has a website. We are pleased to inform you that the MPE exists! You can check it for yourself by going to http://www.mpe-fossiles.org. Yes, it is a French-only website! Be patient, an absolutely identical English-only website will open in a few weeks! After a protracted gestation, our (French) website was born on November 30th, 2010. It contains: a history of the museum, the ongoing activities (dissemination, conservation, research), a description of the Museum such as activities, membership, etc., details of the fundraising campaign (including the chapters on the history of life) and the possibility to donate money or fossils. You can also send messages to members of the board, ask questions about paleontology, etc. The opening of the website should greatly increase our visibility, recruit new members and more generally, accelerate our development. J.-P. G.

Laboratory for conservation and research - MPE

On July 5, 2010, we received the long-awaited stereomicroscope at the laboratory. Remember that this instrument has been paid thanks to a donation from the **Canadian Geological Foundation** and that this was part of our fundraising campaign, the cost amounting to $8, 507.73! It is a Leica stereomicroscope equipped with a 5-megapixel digital camera and a boom stand allowing us to study fossils of all sizes.

We purchased a 21-inch monitor, which is connected to the camera's digital stereomicroscope. The digital camera can take high quality photos, but thanks to the monitor, we are now able to view specimens in real time on the monitor. We can not only see the photo taken, but can more easily show a specimen to a group of visitors. Unquestionably, this addition to the laboratory will be very useful.

Buying an iMac computer, with software updates, has been beneficial for our office. Just think about it! For three years, all the MPE records were stored on the laptop! These purchases (computer and software updates) have been paid for by the Museum's fundraising campaign. Other improvements include the visit of a computer technician who set up our computers into a network. Also, a neighbour, Mr. Gaël Hollard helped install wireless Internet access and finally telephone lines were installed by Mario Cournoyer connecting our laboratory to the outside world! M.C.

Field work 2010

There was no large group outing in 2010. When we went to the St. Nicolas sand pit in May, there were only four participants and at the Laprairie excursion in June, we were only five. At St. Nicolas, it is a bit depressing. New surfaces are being exploited, but we find mostly shallow brackish mollusks: *Mya*, *Macoma*, *Mytilus*. We sampled to check whether the microfauna confirms the macrofauna, but we have not yet been able to process the samples. The site where we used to find so many fossils of all groups, especially vertebrates, is depleted. One of our members, Jacques Letendre, visited the sand pit this summer and brought back a better assortment of fossils. Mario and Jean-Pierre stopped at St. Nicolas in September while returning from Gaspé and they found the site where Jacques had sampled. There was indeed a nice assortment of shells, but it was not "classical St. Nicolas." We are planning to search beyond the area for other similar sites around the same altitude; there could possibly be some, east of Quebec.

At the Laprairie quarry, again, there is a problem. It appears that with continuing extraction, complete layers of rock have been removed and with them, the great diversity of fossils to which we had been accustomed. There are still many, but less. The foreman, Mr. Daniel Renaud, told us that the water table was not far beneath the floor of the quarry and that there remained only 2 to 3 meters to extract, after which the quarry would be abandoned.

During their trip to eastern Quebec, Mario and Jean-Pierre visited many sites. Near Chicoutimi, they sampled Ordovician strata, especially in St. Honoré and at Chute aux Galets. These are small areas (several km^2) of limestone and shale similar to rocks in the Montreal area but isolated in the middle Precambrian Shield, and named "outliers".

The "Seashell Valley" site, managed by the "*Jardin des glaciers*" at Baie Comeau.

In the vicinity of Baie Comeau, Mario and Jean-Pierre saw mostly Quaternary marine deposits. Firstly, the deposits of the "Seashell Valley" at the site of the *Jardin des glaciers* (see: People we visited, page 3) : these sediments consist mostly of shells, with a dominance of *Balanus* sp. and *Mytilus edulis*, which must have lived attached to the many cliffs surrounding the site, falling down after their death and accumulating at the foot of the same cliffs. Secondly, they visited some nice Goldthwait Sea clay sections (equivalent to the Champlain Sea, but east of Quebec) in Pointe aux Outardes and Ragueneau. At that site, as expected, there were many shells trapped in concretions.

Coastal cliffs in Goldthwait sea clay at Pointe aux Outardes.

Close-up view of sediments made up of fossil shells, at the "Seashell Valley."

Field work 2010 (cont.)

The Sayabec Formation at Neigette near Rimouski (Silurian reefs) was not readily accessible and protected anyway. The President of *Club des amateurs de minéraux et fossiles de Gaspésie*, Mr. Christian Rioux, brought Mario and Jean-Pierre to a quarry near the Portage River at Barachois where there were large trilobite elements. Nearby, at Coin du Banc, in the coastal cliffs, Mario and Jean-Pierre found, thanks to Christian's indications, carbonized and pyritized tree trunks, apparently of Carboniferous age (Cannes de Roches Formation).

The "log", or rather segment of fossilized tree trunk; found at Coin du Banc.

Jean-Pierre examining a fossilized tree trunk in the cliff at Coin du Banc.

The dip of the strata, however, seemed very strong for the Carboniferous of the Gaspé region. Previously, Christian had indicated potentially interesting spots for brachiopods along the St-Jean River. The Silurian limestone near Port Daniel is always spectacular. Mario and Jean-Pierre saw deposits and fossil environments representative of reef-protected lagoons, as well as others formed in front of these reefs, under open marine conditions. Unfortunately, the reefs themselves with their corals were very inconspicuous, partly because the sections were not accessible (high tide, filling due to recent work). Finally, in the hills behind Nouvelle, they visited a quarry where they collected specimens of very large pentamerids (brachiopods). They brought back fossils from all locations they stopped at. The most spectacular specimen is probably the "log," that is to say, the fossilized trunk segment (~ 50 cm long) they collected at Coin du Banc. J.-P. G.

Silurian limestone cliffs at Port Daniel.

Close-up view of Silurian crinoidal limestones at Port Daniel. Note the impressive size of the columnals! (small scale: centimetres)

Descriptive card of the specimen

Specimen number :	MPEP109.10 and MPEP109.12
Identification :	partial colony
Genus and species :	*Receptaculites sp.*
Age :	Late Ordovician
Geologic formation :	Red River (Selkirk member)
Locality :	Gillis quarry at Garson, Manitoba
Finder :	Nathalie Daoust and Mario Cournoyer
Date :	August 17 2000

It is not known where the receptaculitids stand in the biological classification. They might be corals or sponges, calcareous algae or even a distinct biological group. They are characterized by a superimposed double spiral configuration, which earned them the nickname "sunflower coral." The shape of living receptaculitids must have been more or less spherical. The preserved parts, consisting of a mosaic of calcite elements called meroms, were supported by soft tissue, which disappeared after the individual's death. Without internal support, the specimen collapsed into a more or less flat shape. Receptaculitids are present from the Ordovician up to the Devonian, or to the Permian, depending on the author you consult. In Quebec, they are reported from the Upper Ordovician of Anticosti, of Lake Waswanipi and of Timiskaming. The specimens shown here have been collected from the Gillis Quarry in Manitoba, where the ornamental Tyndall Stone is extracted. They were accompanied by one of the largest Paleozoic gastropods ever found, owned by the MPE. The Red River Formation, as well as the Ordovician strata in Timiskaming and at Lake Waswanipi, were deposited during a major marine transgression that covered the greater part of North America and left many receptaculitids.

MPEP109.10

MPEP109.12

Membership Cards

Just as at the beginning of every year, we wish to inform you that your membership must be renewed. Attached to this newsletter, you will find a copy of the renewal of membership card. Remember, you can also make a donation; the Museum is a charitable organization duly registered with the Canada Revenue Agency (No. 890282445RR0001) and therefore authorized to issue receipts for tax purposes.

Editorial team

Mario Cournoyer (M. C.)
Jean-Pierre Guilbault (J.-P. G.)
Michel Chartier (revision)
Karilee Fuglem (proofreading)

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Jean-Pierre Guilbault — Vice-president
Diane Beaudriault — Treasurer
Michel Chartier — Secretary and person in charge of the *Laboratory for conservation and research - MPE*
Daniel Beaudriault — Councillor
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