



Canadian Association of Palynologists  
Association Canadienne des Palynologues  
**NEWSLETTER**

Volume 31

Number 2

December 2008

## President's Message

I hope all our Canadian palynologists had a good summer, with enjoyable field work, productive research, or vacations. It was a busy summer for the CAP Executive: Mary Vetter, Alwynne Beaudoin, Terri Lacourse, Matthew Peros, Jean-Nicolas Haas and myself. We had numerous discussions on various issues concerning CAP. I thank them all for their advice and for being on stand-by!

The special session in honour of Pierre Richard at this year's GAC/MAC was a success (see page 3). Pierre told me he does not know how to express his gratitude. The best reward was to see how happy and touched he was! We have to praise Michelle Garneau and her students for making this event a success!

I would like to thank all the members who attended the 2008 AGM on May 27<sup>th</sup> for their input (see the minutes). We had a

lengthy discussion about the CAP Student Research Award but did not reach a consensus. Following the AGM, the CAP Executive discussed this issue and we finally came to an agreement regarding the award. We will hold the first competition in 2009. The deadline to submit applications is March 1<sup>st</sup> and the winner will be announced at the 2009 AGM. Next year's AGM will be held during CANQUA at Simon Fraser University to provide members from the western part of the country the opportunity to attend.

Plans are well under way for the joint AASP-CAP-CPC 2010 meeting in Halifax. Exciting field trips are planned. Please mark your calendars for September 29-October 1. We are working on the program at the moment. Do not hesitate to contact the local organizing committee (Rob Fensome, Peta Mudie, and Graham Williams) with your suggestions.

The Joint Assembly 2009, an event organized by the AGU (American Geophysical Union) and Canadian geoscience associations, will take place in Toronto, May 23-27, 2009. Two sessions have been proposed that might be of interest to palynologists: *New directions in the use of pollen analysis in environmental and climatic reconstructions* (conveners: Matt Peros, Sarah Finkelstein); and *Advances in micropaleontology: addressing issues across the spectrum of paleo-climatology, paleoenvironmental reconstruction, & paleoecology* (conveners: David Scott from Dalhousie University and P. van

### CAP EXECUTIVE 2008

*President:* Elisabeth Levac  
*President-Elect:* Matthew Peros  
*Secretary-Treasurer:* Mary Vetter  
*Newsletter Editor:* Terri Lacourse  
*Website Editor:* Alwynne Beaudoin  
*Councillor to IFPS:* Jean Nicolas Haas

## 2009 CAP ANNUAL GENERAL MEETING

The next Annual General Meeting of the Canadian Association of Palynologists will be held in conjunction with the Canadian Quaternary Association meeting at Simon Fraser University in Burnaby, BC, May 3–8, 2009.

The exact date, time and location of the CAP AGM will be announced in the spring. All CAP members are encouraged to attend the AGM. Those in the Vancouver area, but not attending the CANQUA meeting, may also attend.

Hengstum).

About a dozen or so CAP members attended the IPC meeting in Bonn and an informal CAP meeting was held on September 3<sup>rd</sup> 2008. Jean Nicolas Haas reported on the IFPS-Palynologists directory and announced he is now Editor for *Palynos*. Jean Nicolas will remain our IFPS representative for another term but we will have to find a new representative before 2011. Finally, the next IPC will be in Tokyo, Japan in 2012.

With my best wishes for 2009.  
Sincerely,

**Elisabeth Levac**  
CAP President, 2008-2009  
[elvac@ubishops.ca](mailto:elvac@ubishops.ca)



## Editor's Notes

Thank you to all who contributed material for this edition of the *CAP Newsletter*: Alwynne Beaudoin, Sarah de la Rue, Sarah Finkelstein, Konrad Gajewski, Elisabeth Levac, J.H. McAndrews, Matthew Peros, Reed Wicander, Catherine Yansa, and Michael Zavada.

## Deadline for Next CAP Newsletter

Please submit items for the next issue of the *CAP Newsletter* (Volume 32, Number 1, May 2009) by April 15, 2009. Conference reports, announcements, field trip reports, notices of new books, book reviews, news, and essays on topics relevant to Canadian palynology are all welcome. Please send contributions to:

Terri Lacourse  
CAP Newsletter Editor  
[tlacours@uvic.ca](mailto:tlacours@uvic.ca)

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## CAP's Special Session at GAC/MAC 2008:

### In Honour of Dr. Pierre Richard

The Canadian Association of Palynologists sponsored a Special Session (SS10) on *Stratigraphic and Paleoenvironmental Applications of Palynology* during the Geological Association of Canada Annual Meeting held in Québec City, 26-28 May 2008. The session was organized by Dr. Elisabeth Levac (Bishop's University and CAP President) and Dr. Michelle Garneau (Université du Québec à Montréal).

The session gathered together close to 35 people around eight oral and four poster presentations on various topics: conditions of carbon accumulation in peatlands, post-glacial vegetational history, climate and stratigraphical reconstructions based on dinoflagellates (Holocene and Campanian-Maastrichtian), role of sun in the climate system (cyclicality in high resolution pollen, diatom and sedimentological data), and airborne pollen and spores monitoring and forecasting.

This special session was dedicated to Pierre J.H. Richard. Dr. Jean-Claude Dionne, geomorphologist and Professor Emeritus (Géographie, Université Laval, Québec) first praised Pierre, describing the man and his contributions in colourful terms, setting his action in the historical context of *l'Association québécoise pour l'étude du Quaternaire* (AQQUA) and that of the journal *Géographie physique et Quaternaire* (GpQ). Oral papers then followed.

At the end of the session Dr. Levac and Dr. Garneau publicly released one of CAP's recent realizations, which is the reproduction



*Dr. Pierre J. H. Richard, May 2008.*

of Pierre Richard's pollen atlas: *Atlas pollinique des arbres et de quelques arbustes indigènes du Québec*. Originally published in *Le naturaliste canadien* in 1970 as three distinct papers, it has long been out of print despite the 500 bounded reprints subsidized by the Quebec Department of Land and Forests (designation as of 1970). Thanks to the initiative of CAP President Elisabeth Levac, and to the efforts of André Parent and Noémie Cliche-Trudeau guided by Dr. Michelle Garneau (all from the Geography Department at UQÀM), the document will be made available on the association's web site ([CAP/ACP](#)). A paper copy and a CD were handed to the author who was visibly moved and delighted.

Finally, Pierre was offered an album collating messages from the professors, colleagues, students and friends who happened to meet him from 1963 to 2008. It is a collage, on cardboard pages, of messages of appreciation, stories, poems, drawings, greeting cards, with photographs dating as far back as 1965, when Pierre was 19. Those elements follow the text of the praise pre-

**ATLAS POLLINIQUE  
DES ARBRES ET DE  
QUELQUES ARBUSTES  
INDIGÈNES DU QUÉBEC**

par Pierre Richard



Tirés à part du "Naturaliste canadien"

pared by Jean-Claude Dionne and read before the session. They are artistically displayed, and printed with an antique style. Colourful miniature flowers and 3D leaves are placed here and there on the pages, with the most charming effect. One can easily measure the time and efforts devoted by Michelle Garneau and her helpers in producing such a superb piece of craftsmanship. We shall learn no more about this unique, intimately personalized album.

• • • • •

Dans le cadre du congrès annuel de l'Association géologique du Canada tenu à Québec du 26 au 28 mai 2008, l'Association canadienne des palynologues (ACP) a parrainé une session spéciale (SS10) portant sur les applications stratigraphiques et paléoenvironnementales de la Palynologie. Les organisatrices en étaient Dre. Elisabeth Levac (Université Bishop's et présidente de l'ACP) et Dre. Michelle Garneau (Université

du Québec à Montréal).

Cette session a rassemblé près de 35 personnes autour de huit présentations orales et de quatre affiches portant sur des sujets variés allant des conditions de l'accumulation du carbone dans les tourbières à l'histoire postglaciaire de la végétation, en passant par les reconstitutions climatiques ou palynostratigraphiques s'appuyant sur les dinoflagellés (holocènes ou campaniens-maastrichtiens), le rôle du soleil dans le fonctionnement du système climatique (cyclicité à haute résolution fondée sur le pollen, les diatomées et la sédimentologie), et les prévisions aéropolliniques.

Cette session spéciale était dédiée à Pierre J.H. Richard. Le Dr. Jean-Claude Dionne, géomorphologue et professeur émérite (Géographie, Université Laval, Québec) a d'abord fait l'éloge de Pierre, décrivant l'homme et ses réalisations en termes imagés, situant son activité dans le contexte historique de l'*Association québécoise pour l'étude du Quaternaire* (AQQUA) et de la revue *Géographie physique et Quaternaire* (GpQ). Les communications orales ont suivi.

À la fin de la session, les Dre Levac et Garneau ont rendu publique une réalisation récente de l'ACP à savoir la reproduction, sous forme numérique, de l'*Atlas pollinique des arbres et de quelques arbustes indigènes du Québec* publié par Pierre Richard en 1970 dans la revue *Le naturaliste Canadien*. Cette publication en trois articles distincts était depuis longtemps épuisée malgré un tirage à part relié, en 500 copies défrayées par le Ministère des Terres et Forêts du Québec (dénomination de 1970). Grâce à l'initiative d'Elisabeth Levac présidente de l'ACP et aux efforts d'André Parent et de Noémie Cliche-Trudeau guidés par la Dre Michelle Garneau du département de géographie de





*Pierre Richard avec l'Album!*

l'UQÀM, l'ouvrage sera rendu disponible à partir du site web de l'association ([ACP/CAP](#)). Une copie sur papier et un CD furent remis à l'auteur, manifestement ému et enchanté.

Un album réunissant de nombreux témoignages de professeurs, collègues, étudiants et amis ayant côtoyé Pierre de 1963 à 2008 lui fut enfin offert. Il s'agit d'un collage, sur pages cartonnées, de messages d'appréciation, d'anecdotes, de poèmes, de dessins, de cartes de vœux, illustré de photos dont la plus ancienne remonte à 1965 quand il avait 19 ans. Ces éléments sont disposés à la suite du texte de l'éloge inaugural préparé par Jean-Claude Dionne. Ils y sont admirablement présentés, les textes étant imprimés en caractères à l'ancienne, les pages, égayées de collages de feuilles ou de fleurs miniatures du plus charmant effet. On devine aisément les efforts déployés par Michelle Garneau et ses complices artisans dans l'élaboration d'un tel recueil. Nous n'en saurons pas plus sur le contenu de cet album unique, intimement personnalisé.

## GAC/MAC 2008 Special Session Québec City, May 2008

### Oral Presentations

M. Garneau, **Hans Asnong**. Beaulieu-Audy, V., Ali, A., Loisel, J., van Bellen, S., Turunen, J. et Pelletier, L. Accumulations récente et à long terme du carbone des tourbières boréales des basses-terres de la Baie de James, Québec, Canada.

**Julie Loisel** and Michelle Garneau. The effects of moisture, climate and vegetation on long-term carbon sequestration rates in two boreal peat bogs, James Bay, Québec.

**Louis Tremblay** et M. Garneau. Aqualyse des tourbières du complexe LaGrande: Développement des mares et reconstitution des changements hydrologiques.

**Martin Lavoie**, S. Pellerin, A.-M. Girard-Cloutier, M. Bottolier Curtet et M. Larocque. La tourbière du mont Covey en Montérégie (Québec): plus de 12 000 ans d'informations paléoenvironnementales.

**Jennifer M. Galloway**, A. Wigston, A. Prokosh, R.T. Patterson and H. M. Roe. A high-resolution pollen, diatom, and sedimentary record of Late Holocene climate variability from an anoxic fjord in the Seymour-Belize Inlet Complex, British Columbia.

**Matthew T.J. Dalzell** and D.R. Braman. Dinoflagellate magnetobiostratigraphy and palaeoecology of the Bearpaw Formation of Alberta: An example of a multi-proxy palynological study.

**Andre Rochon** and T. Richerol. Evolution of sea surface conditions in the Beaufort Sea (Canada) over the last 600 years: A pre-industrial record of climate change.

**Pierre J.H. Richard.** Dynamique postglaciaire de la végétation au Mont St-Hilaire par l'analyse pollinique de deux archives sédimentaires contrastées.

### Poster Presentations

**Pierre-Luc Dallaire** et M. Garneau. L'utilisation d'un Géoradar (GPR) afin de caractériser la stratigraphie de la tourbe et estimer le carbone organique accumulé dans une tourbière boréale, région d'Eastmain, baie James, Québec.

**Ann A.L. Miller**, E. Levac, D. L. Waugh, B.J.A. Moulton and D.H.S. Richardson. The

Nova Scotia Experimental Pollen and Spore Monitoring and Forecast Program: 7-year results and trends.

**Anne Quillet**, M. Garneau et C. Peng. Etude des fluctuations du niveau de la nappe phréatique et de l'accumulation du carbone dans deux fens et deux bogs de la région des basses terres de la Baie James au Québec.

**Simon van Bellen**, M. Garneau et Y. Bergeron. Carbon accumulation rates, fire history and a multi-proxy record in three ombrotrophic bogs in the James Bay region.



## CAP ANNUAL STUDENT RESEARCH AWARD

In an effort to recognize students' contributions to palynological research, the Canadian Association of Palynologists (CAP) is pleased to announce an annual student research award. The award is open to any undergraduate or graduate student who is a member, in good standing, of CAP, regardless of their nationality or country of residence. The intent of the research award is to support student research with a strong palynological component. The award consists of a three-year membership in CAP, a certificate, and \$200 CDN, to be put toward some aspect of the student's research.

The application should consist of: 1) a one-page statement outlining the nature of the research project, its scientific importance, the approximate timeline to completion of the project, and the aspect of the research the funds would be directed toward; (2) a CV; and, (3) a letter of support from the student's supervisor. The application should be submitted to the CAP President-elect by e-mail on or before March 1<sup>st</sup>, 2009. Applications will be accepted in both French and English. Reference letters should also be e-mailed to the President-elect by the March 1<sup>st</sup> deadline.

Only one award will be given per year, and there will be no limit to the number of times a student can submit an application. The winner of the 2009 competition will be announced at the CANQUA meeting in Vancouver, May 3-8, 2009.

Completed applications and questions concerning the award should be sent to the CAP President-elect, Matthew Peros ([mperos@uottawa.ca](mailto:mperos@uottawa.ca)).

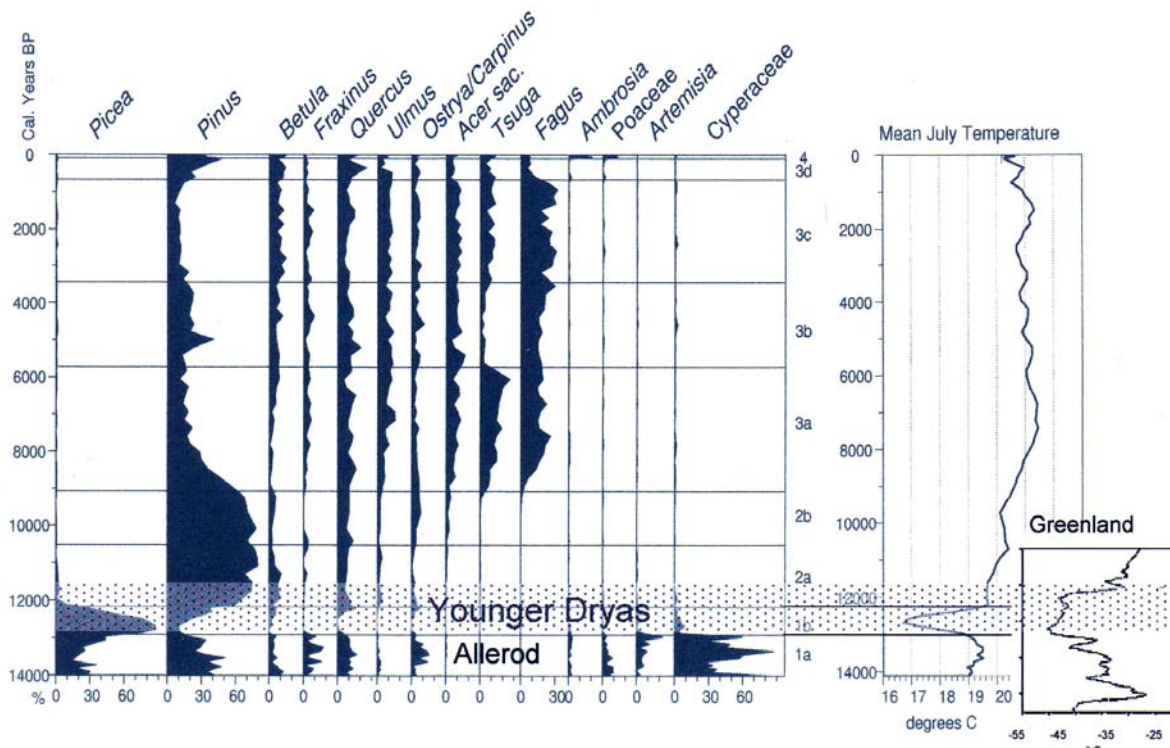
## Commentary

### POLLEN, CLIMATE, A COMET AND MASTODON EXTINCTION

The late Professor Reid Bryson liked to say that continental glaciers retreat in a warm climate - seems reasonable. After deglaciation 14,000 years ago, a spruce-herb pollen zone (1a) reflects the mild climate of the Allerød warm period; July temperatures were only a degree or two below those of today. In this mild climate, mastodon happily browsed on white spruce and grazed on upland herbs (McAndrews and Jackson 1988, McAndrews 2003). Then at 12,900 years ago, the climate turned colder causing suc-

cession to boreal forest, at first spruce (zone 1b) and then jack pine (zone 2a). This Younger Dryas cold period appears in other pollen diagrams from the Northeast as well as in the oxygen isotope values from the Greenland ice core (Shuman et al. 2002). During this interval of rapid climate and vegetation change not only did mastodon become extinct but also stagmoose, giant beaver and mammoth, at least south of the ice sheet.

As to what caused the Younger Dryas cold period that led to the extinction, most folks say that a failure of the thermohaline circulation in the North Atlantic kept warm summer air from moving northward. It seems that an outburst of freshwater from proglacial lakes



Pollen diagram from Wilcox Lake, a kettle lake (43.95°N -79.43°W) located 30 km north of Toronto. Main pollen types shown are based on a tree sum. July temperature is a three-point moving average of the pollen-climate transfer equation for region G (Bartlein and Webb 1985). The Greenland temperature is from oxygen isotope analysis of the Greenland GISP2 ice core. Source: Westgate et al. (1999) in B.I. Roots (ed.), *Special Places: The Past, Present and Future Ecosystems of the Toronto Region*, UBC Press.

located along or under the Laurentide ice sheet shut down the Atlantic circulation. Firestone et al. (2007) contend that this great flood had to do with a comet crashing onto the ice sheet. This supposed comet not only destabilized the ice sheet but also spewed extraterrestrial minerals. Magnetite was an example and that magnetite crystals could be found on tusks of mammoth and mastodon that lived during the impact event. Using a wee magnet dangling from a thread, I have found magnetite crystals on tusks of two mastodon of the correct age. I have yet to test the crystals of this common terrestrial mineral for extraterrestrial iridium.

Stay tuned.

**J.H. McAndrews**

Departments of Geology and  
Ecology & Evolutionary Biology  
University of Toronto

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*ral Sciences* 33: 161-172.

Shuman, B., T. Webb III, P. Bartlein and J.W. Williams. 2002. The anatomy of a climatic oscillation: vegetation change in eastern North America during the Younger Dryas chronozone. *Quaternary Science Reviews* 21: 1777-1791.

## 2010 AASP-CAP-CPC Joint Meeting Halifax, Nova Scotia Sept 29-Oct 1, 2010

Please mark your calendars and plan to attend the joint AASP-CAP-CPC meeting in Halifax, Nova Scotia, September 29-October 1<sup>st</sup>. The meeting will be held at the Harbourview Holiday Inn, just minutes from the ferry terminal and with spectacular views of the Halifax Harbour. Rob Fensome, Peta Mudie, and Graham Williams are the Local Organizing Committee.

We are planning exciting field trips, including one to Joggins World Heritage site where you can see some of the most spectacular fossil tree trunks and the world's earliest reptiles. Other field trips will possibly include locations such as the Paleoindian site in Debert, the Cobequid-Chedabucto fault, the North Mountain Basalt, Ariesaig, and the unique Windsor gypsum cliffs at St Croix. Impressive drumlin fields and glacial deposits are found throughout Nova Scotia, especially around Old Town Lunenburg, a UNESCO World Heritage Site. And let's not forget that the Bay of Fundy has the largest tides in the world!



## MINUTES OF THE 2008 CAP ANNUAL GENERAL MEETING

Venue: GAC/MAC 2008, Centre des  
Congres de Québec, Québec City, QC, May  
27th, 2008

Present: Elisabeth Levac (Chair), Matthew  
Dalzell, Bianca Frechette, Jennifer Gallo-  
way, Michelle Garneau, Julie Loisel, Pierre  
Richard, and Ian Walker. Quorum achieved.

1. Welcome, approval of agenda. Julie  
moved to approve agenda, Michelle sec-  
onded. All approved.

2. Review and acceptance of minutes from  
the 2007 AGM. Michelle moved to accept  
minutes, Julie seconded motion.

3. President's Report (Elisabeth Levac)  
Elisabeth informed the members of plans  
regarding the upcoming AASP-CAP-CPC  
meeting in Halifax and GeoCanada 2010 in  
Calgary, both in 2010, and invited all to at-  
tend and propose ideas for sessions and ac-  
tivities. The transition to electronic format  
for the Newsletter, initiated under the previ-  
ous president (Sarah Finkelstein) has been  
completed with success. (See below for mo-  
tion).

4. Secretary-Treasurer's Report (Mary Vet-  
ter, in absentia)  
Similarly to last year, the financial situation  
is very good. The account balance makes an  
annual CAP student award feasible. (See be-  
low for motion).

5. Auditor's Report (Rob Fensome, in ab-  
sentia)  
The auditor reports that financial statement  
by our Secretary-Treasurer is a full and fair  
account of the state of CAP's financial  
status. (See below for motion).

6. Newsletter Editor's Report (T. Lacourse,  
in absentia)  
Terri reports she received positive feedback  
on the new digital Newsletter. She is already  
inviting members to submit material for the  
December 2008 issue, noting that the May  
2008 issue was shorter than usual. (See be-  
low for motion).

7. Website Editor's Report (A. Beaudoin, in  
absentia)  
The number of visits to the CAP website has  
increased markedly. Alwynne is posting lots  
of time-sensitive information throughout the  
year and started archiving back issues of the  
Newsletter. She also started to compile an  
index and an author listing for past Newslet-  
ter issues (and scan older ones as PDF files).  
(See below for motion).

8. News from IFPS—International Federa-  
tion of Palynological Societies (Jean Nicolas  
Haas)  
No report submitted this year. We will have  
one next year with the International Paly-  
nological Congress in Bonn, Germany Au-  
gust 30th-September 6th, 2008.

All members were given a few minutes to  
review the reports on their own. There was  
unanimous approval for the acceptance of all  
reports.

9. Location for 2009 AGM: GAC/MAC  
meeting, Toronto May 24-27<sup>th</sup>, 2009  
There was discussion regarding two possible  
locations for the 2009 AGM. Elisabeth had  
initially proposed to hold the 2009 AGM  
during the GAC/MAC meeting, just like this  
year. The meeting will be held in Toronto.  
An incentive to hold the AGM in Toronto is  
the fact the meeting will be a joint one be-  
tween GAC-MAC-CGU-AGU..., hence a  
large attendance. Pierre informed members  
that the next CANQUA will be held at

Simon Fraser University, Vancouver, BC on May 3-8, 2009 and proposed to hold the AGM there instead. Elisabeth remarked that with the 2007, 2008 and 2010 AGM held at relatively "eastern" locations (Ottawa, Quebec City and Halifax), it would be fair to hold the AGM in Vancouver next year.

#### 10. Call for CAP Sessions at Meetings

Elisabeth announced that members will soon be invited to submit session proposals and ideas for the joint AASP-CAP-CPC meeting in Halifax (September 29th-October 1st, 2010) and to the GeoCanada 2010 meeting in Calgary.

#### 11. Priorities & Goals for CAP

Two topics were discussed at length at this year's AGM: the Newsletter, and the next special session (or future special sessions)

##### *Discussion around the CAP Newsletter*

Members all greatly appreciate the CAP Newsletter, but getting material and article is always a challenge for the Editor. It was proposed that upcoming newsletters include a history of the early palynologists working in Canada. Pierre praised the work of Finland palynologists on North American peatland, who built excellent stratigraphies without the help of radiocarbon dating. A survey of what members like was also proposed.

##### *Discussion around the next special session*

Pierre expressed his surprise at being the first palynologist to be honoured by the CAP and humbly argued others are more deserving and accomplished more than him. Members present reminded him of some of his pioneer work and constant dedication to palynology. We argued the honour he received was fully deserved, and it was logical to honour him in Quebec City, where he started. We stressed that other great Canadian palynologists would not be forgotten by the CAP in coming years.

#### 12. New CAP Student Research Award

The idea of a student research award was positively received by members. However, a few members noted the application procedure is lengthy given the size of the award. Pierre noted that students are constantly evaluated. He proposed instead to give an award for the best thesis completed in a given year (the definition of the year to be determined; i.e. academic year, calendar year or else). This idea was very well received. Pierre added that we would kill two birds with one stone: students would apply by submitting a PDF version of their thesis, that would then be posted on the CAP web site, providing new material to the site at the same time. In conclusion, the student research award was not approved in its present form.

#### 13. Atlas Pollinique de Pierre Richard

The President briefly mentioned that the project to digitize Pierre Richard's pollen atlas, proposed during the 2007 AGM, had been realized but added that members would know more about this during the palynology session.

#### 14. Other business

No other business raised.

#### 15. Adjournment

Motion for adjournment made by Pierre, seconded by Jennifer.

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### **CAP President's Report, 2008**

It's been a productive year for CAP with the realizations of projects initiated by our previous president Sarah Finkelstein and numerous new plans for the coming years. Since my term as President started in January 2008, I have been busier than I expected and I gained a much better appreciation for this

type of volunteer work! Fortunately, I could always count on all Executive members and I want to express my gratitude to them. I thank Mary Vetter, Alwynne Beaudoin, Terri Lacourse, and Jean Nicolas Haas for volunteering their time and effort during 2008 to run CAP. Thank you also to Konrad Gajewski for serving as our nominating committee and to Rob Fensome for serving as Auditor. I can also consult the President's binder created by Sarah Finkelstein.

As in previous years, CAP will continue to be active in conference presentations with many plans in the making. A joint AASP-CAP-CPC meeting is planned for September 29-October 1<sup>st</sup> in Halifax. Rob Fensome, Peta Mudie, and Graham Williams are the Local Organizing Committee. Inputs from CAP members are welcome. I think it is also important to have a CAP presence at Geo-Canada 2010 in Calgary (perhaps a special session) and I am in contact with the organizers.

Our most important project this year is the special palynology session to honour Pierre Richard, taking place on May 27<sup>th</sup> in Quebec City. Following last year's AGM, Sarah Finkelstein proposed this session to the organizers of GAC/MAC 2008. This session will showcase current palynological research in Canada and co-session chair Michelle Garneau has spared no efforts to make it a success. Many of Pierre's former students will present during this session, which promises to be exciting.

Two other projects were initiated following discussions at CANQUA in Ottawa last year. We had many discussions during the winter about the CAP Student Research Award. Matthew Peros prepared a document that will be presented at the AGM for approval. The other project was to digitize Pierre Richard's pollen key\*. This publication contains

excellent pictures and descriptions but it is unfortunately out of print. Electronic copies will be available thanks to Michelle Garneau at the department of Geography at UQAM, André Parent and Noémie Cliche-Trudeau. This pollen key will be presented during the palynology session at GAC/MAC.

CAP has now completed its transition to a digital newsletter and we thank her new editor Terri Lacourse for her work. The Newsletter is important to disseminate information to our members, scattered across a vast geographic area (Canada and worldwide).

Finally, we are inviting all CAP members to attend the upcoming AASP 2010 and Geo-Canada 2010 meetings and we are welcoming inputs and ideas from all.

Respectfully submitted,

**Elisabeth Levac**  
CAP President 2008-2009  
May 15, 2008

*\*Richard, P.J.H. 1970. Atlas pollinique des arbres et de quelques arbustes indigènes du Québec. Le naturaliste Canadien 97:1-34, 97-161, 241-306.*

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## **CAP Secretary-Treasurer's Report, 2008**

### **Membership Report**

<b>Year</b>	<b>Members</b>
2002	53
2003	54
2004	43
2005	36
2006	47
2007	51
2008	55 [57]

As of May 1, 2008, CAP has 55 members in good standing who have paid dues for 2008. This is a good recovery from our low point in 2005 when we had just 36 members, and is the greatest number of members we have had in recent years. [Note: 2 more memberships were received on May 12, 2008, to bring the 2008 total to 57 as of this date.]

### Financial Report

For the period ending May 1, 2008, the balance in the CAP account is \$4580.03. IFPS dues for 2008 have not yet been paid; we have had some difficulties transferring the funds, and so our ACP IFPS Councilor will make the payment to the IFPS Secretary/Treasurer directly at the Bonn meeting. The bank balance has remained healthy over the years, and there are now minimal costs associated with mailing the few required paper copies of the Newsletter as the Newsletter is distributed electronically. The only other on-going costs will be annual IFPS dues (\$1.50 USD per member) and the annual corporation renewal fee (\$25+GST). The Bank of Montreal has eliminated fees for deposits of US cash and cheques. Therefore, following consultation with the Executive and given the near parity of the Canadian and US dollars, CAP has given members the option of paying in Canadian or US funds. This had made payment of membership dues easier for our US and international members, and I believe contributed to the renewal of some lapsed memberships.

### Recommendations

From a financial point of view, the initiation of the proposed CAP Student Award is feasible.

Respectfully submitted,



**Mary Vetter**  
CAP Secretary/Treasurer

## CAP Annual Financial Statement 1 May 2007—1 May 2008

<b>Opening Balance</b>		<b>\$4580.03</b>
Revenue	membership dues	\$647.41
	interest earned	\$2.22
Expenses	bank fees	\$0.00
	corporation renewal	-\$26.70
	CANQUA 2007 cof-fee session	-\$250.00
<b>Closing Balance</b>		<b>\$4592.96</b>

The closing balance includes 52 prepaid annual memberships in the amount of \$520.00 for the years 2009-2012. This will affect the income from this source for the years indicated. IFPS dues for 2008 will be paid at the Bonn Meeting (estimate of \$82.50 USD based on 55 current members).

Respectfully submitted,



**Mary Vetter**  
CAP Secretary/Treasurer

### Statement by Appointed Auditor:

It is my opinion that the above financial statement represents a full and fair account of the financial affairs of the Canadian Association of Palynologists for the period indicated above.

**Rob Fensome**  
Auditor for CAP



## CAP Newsletter Editor's Report, 2008

In April 2007, the CAP Executive decided to produce and distribute the CAP Newsletter in a digital format. Since then, all issues of the Newsletter have been electronic, but paper copies were sent to two CAP members as well as various libraries that accession the Newsletter. Thus far, feedback from members on the new digital format has been positive.

The December 2007 Newsletter was distributed to CAP members on December 14, 2007. It consisted of 25 pages, including an obituary for Calvin Heusser by Dorothy Peteet and minutes of the 2007 CAP Annual General Meeting.

The May 2008 Newsletter was sent to CAP members on April 25, 2008 and at 17 pages, was a relatively short issue. It included an obituary for Glenn Rouse by Rolf Mathewes

and a historical synopsis of the CAP Newsletter by Alwynne Beaudoin.

I am currently accepting material for the December 2008 Newsletter, which will be distributed to members by mid-December.

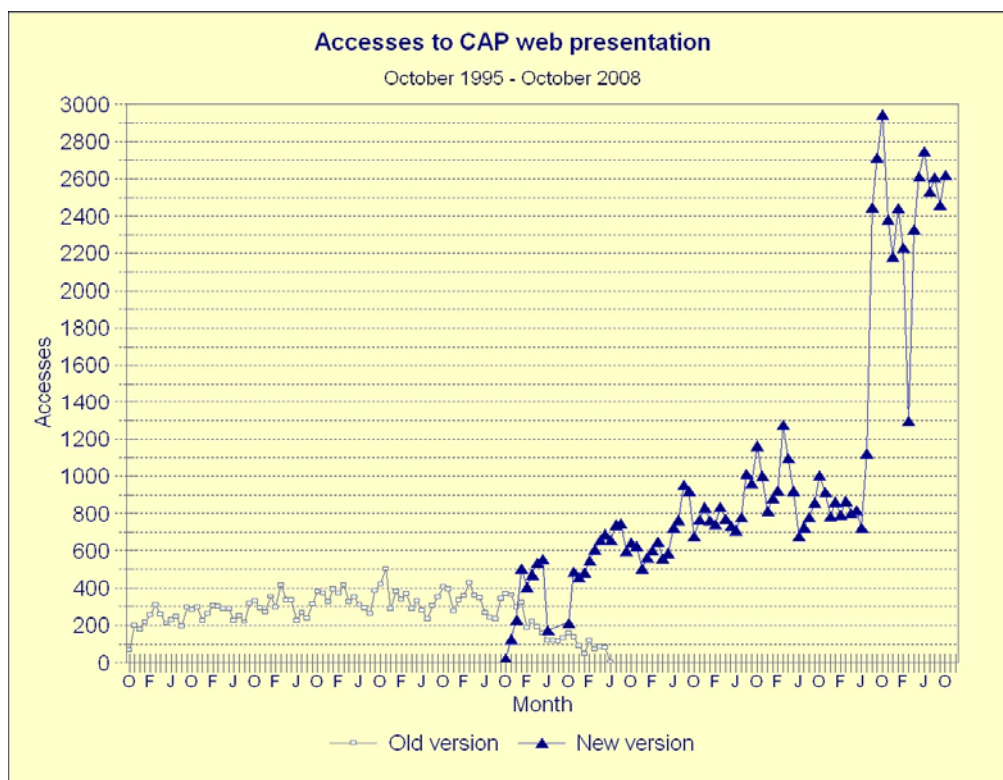
Respectfully submitted,

**Terri Lacourse**  
CAP Newsletter Editor  
May 1, 2008

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## CAP Website Editor's Report, 2008

I have continued as Editor for the CAP website since the last AGM. The presentation is located at [www.scirpus.ca/cap/cap.shtml](http://www.scirpus.ca/cap/cap.shtml), under my own domain ([www.scirpus.ca](http://www.scirpus.ca)). There are no costs to CAP associated with this hosting. Accesses to the presentation have increased markedly in the last year, and are generally now more than 2000 each



month. The presentation provides various resources and information about CAP to the palynological community. I have continued to update time-sensitive sections of the presentation, such as the conference listing, throughout the year. With the CAP Newsletter now being issued in an electronic format, I have begun archiving back issues on the website, making them available to members over the long-term. I have established a "moving window" for electronic issues, such that the most recent and previous issue are not available through the website. This provides a "membership benefit" to current members, who therefore have access to the most recent issues, which are distributed through e-mail, before they are generally available. Similar policies are in place for many publications offered in electronic for-

mat. I have also compiled an index to all past Newsletter issues, supplemented by a detailed author listing, and I have begun a project to scan and add older newsletters as PDF files to the website. As always, I would appreciate more CAP-related material for the web presentation. I would be pleased to receive suggestions or content for new components to broaden its appeal.

If CAP members are agreeable, I am prepared to continue as the association's Website Editor for another year.

Respectfully submitted,

**Alwynne B. Beaudoin**  
CAP Website Editor  
May 3, 2008

## CALL FOR PAPERS

### **CAP-Sponsored Special Session at CANQUA 2009:**

#### ***Putting the Ecology Back into Paleoecology***

CAP is sponsoring a special session at the Canadian Quaternary Association meeting at Simon Fraser University in Burnaby, BC, May 3 – 8, 2009.

Biotic remains preserved in Quaternary archives form the basis for much paleoenvironmental and paleoclimatic reconstruction. These fossils are often the only means to examine past ecosystems and the subsequent inference of paleoclimates. With the recent importance of global climate change to society, the ecological application of paleoecological studies appears to have been neglected. This session will focus on the application of paleoecological techniques in understanding long-term ecosystem structure and function leading to inferences regarding ecological properties such as resilience, ecosystem thresholds, disturbance regimes, and testing hypotheses about ecological processes such as competition, species interactions, and migration. The intent of this session is to focus on the ecological component of Quaternary science, the mechanism that makes fossil-based paleoenvironmental reconstruction possible.

Conveners: Terri Lacourse ([tlacours@uvic.ca](mailto:tlacours@uvic.ca)) & Marlow Pellat ([marlow.pellatt@pc.gc.ca](mailto:marlow.pellatt@pc.gc.ca))

## GRADUATE STUDENT OPPORTUNITIES

### *University of Toronto*

I am seeking new graduate (MSc or PhD) students for paleoecological research in my lab at the University of Toronto. If you have a strong academic record, are motivated, enthusiastic, and passionate about Canada's northern environments, please get in touch. No prior experience with paleoecological techniques is required (although this is always an asset!) - just a scientific background and willingness to work hard and learn new things. The application deadline is January 15, 2009.

There are presently funded opportunities in two projects:

1. Holocene Paleoenvironments of Prince of Wales Island in the Canadian High Arctic.
2. Peatland paleohydrology and paleoecology, James/Hudson Bay Lowlands.

Please send me an email for more information about these projects, or view our website for project descriptions: <http://faculty.geog.utoronto.ca/finkelstein/joinus.html>

Information on graduate studies at the University of Toronto can be found at: [www.sgs.utoronto.ca/](http://www.sgs.utoronto.ca/)

Dr Sarah Finkelstein  
Department of Geography  
University of Toronto  
[Finkelstein@geog.utoronto.ca](mailto:Finkelstein@geog.utoronto.ca)  
Tel: +1.416.978.1672



### *McGill University*

Funding is available for a master's student (possibly PhD) to study Holocene millennial-scale variability in paleoceanographic records. Other palynology projects, underway or starting soon, can be proposed to students. Background in palynology would be an asset. The work is to be carried at McGill University in the Department of Geography.

Interested students are urged to contact Dr. Elisabeth Levac ([elevac@ubishops.ca](mailto:elevac@ubishops.ca)) or Dr. Gail Chmura ([gail.chmura@mcgill.ca](mailto:gail.chmura@mcgill.ca)).

Information on graduate studies at McGill University can be found at: [www.mcgill.ca/gps/](http://www.mcgill.ca/gps/)

**42<sup>nd</sup> Annual Meeting of the  
American Association of Stratigraphic Palynologists  
Meadowview Convention Center, Kingsport TN**



Natural History Museum, Gray Fossil Site, ETSU

The 42<sup>nd</sup> Annual Meeting of the American Association of Stratigraphic Palynologists is being held in the Appalachian Mountains of east Tennessee, bordering Virginia and North Carolina. **Start making plans to attend now!** Plans for a pre-conference workshop and post-conference field trips are being made. In addition, thematic sessions on forensic palynology and in honor of Ronald Kapp are underway. Three general lectures are planned, featuring David Pocknall: *Palynology and Petroleum: Supplying Americas Energy Needs*, Vaughn Bryant: *Pollen, Much More than a Sneeze*, and Owen Davis: *Climate Change in Arid Regions*, and will be open to the public.

**I also want to remind every AASP member and non-member, whether attending the meeting or not, that you are welcome to submit your best artistic photographs that depict any aspect of palynology (including industry, organic petrology, ultra-structure, etc.) for a display that will be presented at the Natural History Museum and Gray Fossil Site.** The exhibit opens on the night of the ice breaker September 27, 2009 and will run about 2 months. We will also take suggestions for the name of the exhibit. Send an electronic version of the photograph(s) or a high quality photograph on paper to Michael S. Zavada, Department of Biological Sciences, Box 70703, Johnson City, TN 37614 or to [zavadam@etsu.edu](mailto:zavadam@etsu.edu). The museum will mount and label the photographs, which will be returned at the end of the public display. Immediately following the meeting is the International Storytelling Festival in nearby Jonesborough, TN. This festival annually attracts tens of thousands for down-home fun, and includes crafts, music, and showcases the rich folklore and oral traditions of the Appalachian and international peoples.

The 42<sup>nd</sup> Annual Meeting will be held at Meadowview Resort ([www.bookmarriott.com/329/index.html](http://www.bookmarriott.com/329/index.html)) at the foot of Bay's Mountain, in the Tri Cities (Bristol-Kingsport-Johnson City), which offers a stunning setting with swimming, golf (18 holes only \$45 with cart) and local tourist attractions (including Barter Theatre, and all that Ashville, N.C., Pigeon Forge and Gatlinburg have to offer less than 90 minutes away). It is especially fun for children. The airport is located just a few miles from the resort ([www.triflight.com/](http://www.triflight.com/)). In addition, the cost of the meeting is all inclusive. This means the prices include the entire meeting package i.e., meeting registration, resort hotel accommodations, food (outstanding Breakfast, Lunch & Dinner buffets), Icebreaker with music by *The Bearded* ([www.thebearded.org/mnuHome.htm](http://www.thebearded.org/mnuHome.htm)), Tuesday Evening Banquet with music by the ETSU Music Department Jazz Ensemble, transportation to and from events, the Wednesday business luncheon, and workshop



(if applicable). Field trip or attendance at the International Story Telling Festival is separate.  
**The costs are very reasonable for students and for international attendees.**

#### MEETING SCHEDULE

Friday	September 25	Check-in if attending workshop
Saturday	September 26	Workshop: "Understanding Pollen and its Application to Forensic Palynology"
Sunday	September 27	Check-in & Meeting Registration, Icebreaker at Museum of Natural History and Gray Fossil Site
Monday	September 28	Sessions, Public Lecture
Tuesday	September 29	Sessions, Public Lecture, Evening Banquet
Wednesday	September 30	Sessions, Business Luncheon, Public Lecture
Thursday	October 1	Field trip
Friday	October 2	Field trip, Storytelling Festival
Saturday	October 3	Field trips return to Meadowview, International Storytelling Festival
Sunday	October 4	Check-out, Last day of Storytelling Festival

#### REGISTRATION

In January, a website will go active for registration and submission of your abstract. **A non-refundable deposit of \$250 is required at Registration** although you can submit the entire amount at the time of registration. Abstracts are due by **August 10, 2009**. **The prices below are all inclusive and are "per person" rates.**

#### Meeting Only

##### **Option 1 – Sunday Check-in to Wednesday Check-out**

<u>Single</u>	<u>Double</u>	<u>Triple</u>	<u>Quad</u>
\$875	\$775	\$650	\$625

##### **Option 2 – Saturday Check-in to Wednesday Check-out**

<u>Single</u>	<u>Double</u>	<u>Triple</u>	<u>Quad</u>
\$1000	\$825	\$775	\$725

##### **Option 3 - Sunday Check-in to Thursday Check-out**

<u>Single</u>	<u>Double</u>	<u>Triple</u>	<u>Quad</u>
\$1000	\$825	\$775	\$725

##### **Option 4 – Saturday Check-in to Thursday Check-out**

<u>Single</u>	<u>Double</u>	<u>Triple</u>	<u>Quad</u>
\$1125	\$950	\$900	\$850

#### Workshop + Meeting

Includes cost of the workshop (Transportation will be provided to and from Meadowview and ETSU)

**Option 1 – Friday Check-in to Wednesday Check-out**

<u>Single</u>	<u>Double</u>	<u>Triple</u>	<u>Quad</u>
\$1150	\$1025	\$925	\$875

**Option 2 – Friday Check-in to Thursday Check-out**

<u>Single</u>	<u>Double</u>	<u>Triple</u>	<u>Quad</u>
\$1275	\$1100	\$1050	\$1000

**Meeting + Field Trip**

*Add the approximate cost of the field trip or event to Options 3 or 4 for “Meeting Only”*

**Appalachian Habitats: Flora, Bears, and Birds**, Organizer: Fred Alsop (add approximately \$450). Includes food, transportation, accommodation, guides, and materials. *Minimum 10 participants*

**Tennessee Ball Clays, Collecting the Clairborne**, Organizers: Liu and Zavada (add approximately \$450). Includes transportation, accommodation, light breakfast, a visit to the Courthouse and Museum in Dayton, TN, the site of the Scopes Monkey Trial ([www.law.umkc.edu/faculty/projects/FTrials/scopes/scopes.htm](http://www.law.umkc.edu/faculty/projects/FTrials/scopes/scopes.htm) or [www.bryan.edu/1990.html](http://www.bryan.edu/1990.html)), and fossil collecting near Paris, TN. Does Not include lunch and dinner Thursday-Saturday. *Minimum 10 participants*

**International Storytelling Festival, Jonesborough, TN** (\$120 each additional night at Meadowview (all inclusive) + the cost of the ISF Tickets see [www.storytellingcenter.net/festival/about-fest.htm](http://www.storytellingcenter.net/festival/about-fest.htm)). Meeting participants can continue their stay at Meadowview for this international event that begins on Friday October 2 and ends Sunday October 4 in the oldest town in Tennessee, Jonesborough. Attend one, two, or all three days of the festival.

**Workshop + Meeting + Field Trip**

For the best value, add the approximate cost of your chosen field trip to the following choices if you want to participate in the Workshop and attend the entire meeting. Those attending the ISF should add \$120 for each additional night at Meadowview and the cost of the ISF tickets.

**NOTE: During the International Story Telling Festival local Motels double their prices and most are booked well in advance.**

**Friday Check-in to Thursday Check-Out**

<u>Single</u>	<u>Double</u>	<u>Triple</u>	<u>Quad</u>
\$1275	\$1100	\$1050	\$1000

Looking forward to seeing you at the meeting!

**Michael Zavada**

East Tennessee State University  
Department of Biological Sciences  
Box 70703, Johnson City, TN 37614 USA  
[zavadam@etsu.edu](mailto:zavadam@etsu.edu)





## Palynolit

Arthur Philemon Coleman (1852-1939) was a geologist and mountaineer, and spent much of his career as a professor of geology at the University of Toronto. Between 1884 and 1908, he made several trips to the Canadian Rockies, being particularly keen on making first ascents and exploring new ranges. In 1907, with two other men, he made the first attempt to climb Mount Robson, at almost 13,000 feet the highest peak in the Canadian Rockies. They were defeated by the weather and the summit remained unattained until 1913. Coleman recounts many of his mountain adventures, especially his search for the legendary mounts Brown and Hooker, in *The Canadian Rockies: New and Old Trails*, a volume that has recently been reprinted. His narratives are enlivened by acute observation of the landscape through which he travelled and occasional self-deprecating humour. In the following passage, he describes a nunatak he explored in the Brazeau Icefield, now part of Banff National Park, on August 21, 1902.

The island of rock, or nunatak, was a crag a few acres in size a mile and a half from the edge of the icefield, and was probably not so very long ago buried under the glacier; but it now had its plants and animals, a little world enclosed in white. Beside the expected lichens and mosses were three flowering plants, pink campion, short-stemmed daisy-like blossoms and a low plant with a yellow, composite bloom. A few flies had escaped the dangers of the glacier and were on hand to do their duty to the flowers as carriers of pollen from plant to plant. In the

sun toward the end of August things seemed cheerful enough, but more than three-quarters of the year must be winter.

From *The Canadian Rockies: New and Old Trails*, by A. P. Coleman, p. 125. Originally published 1911, reprint edition by Rocky Mountain Books, 2006.

**Alwynne B. Beaudoin**  
Edmonton, Alberta



### BULLETS TAGGED WITH POLLEN COULD HELP SOLVE GUN CRIMES

For more information, go to:

[www.guardian.co.uk/science/2008/aug/06/gun.crime](http://www.guardian.co.uk/science/2008/aug/06/gun.crime)



## INVITATION

### MEETING

Devonian to Carboniferous Palynology: Contributions to Palaeogeography, Palaeoceanography, and Geotectonics of the Euramerica – Gondwana Collision

**Venue:** University of the Algarve, Faro, Portugal

**Date:** 20 to 24 September 2009

The Spore / Pollen and Acritarch Subcommissions of the CIMP warmly invite you to attend the CIMP Faro 09 meeting on Devonian to Carboniferous Palynology: Contributions to Palaeogeography, Palaeoceanography, and Geotectonics of the Euramerica – Gondwana Collision.

This reunion builds on the general CIMP meeting held in 2007 in Lisbon and will bring together palynologists and other geoscientists with the aim of stimulating discussion regarding the utility of palynomorphs in the reconstruction of the Euramerica – Gondwana collision. We are seeking presentations in which palynomorphs contribute significantly to palaeogeographic, palaeoceanographic, and geotectonic models. Studies that integrate palynology with stratigraphy, sedimentology or other disciplines, are also welcome.

A two-day technical session will be followed by a two-day fieldtrip to the key outcrops of the Upper Devonian to Carboniferous Southwest Sector of the South Portuguese Zone. Due to difficulties relating to safe access of the outcrops, the fieldtrip will be limited to the first 25 participants. However, the technical sessions will not have any restrictions as to the number of participants.

We will very soon be including on the CIMP web page ([www.cimp.ulg.ac.be/Spores.html](http://www.cimp.ulg.ac.be/Spores.html)) a link with all the information regarding this meeting.

Hope to see you all in Faro.

The Organising Committee,

Paulo Fernandes, Zélia Pereira, Tomás Oliveira, Geoff Clayton, and Reed Wicander





## Recent Publications — 27

Ali, A.A., Asselin, H., \*Larouche, A.C., Bergeron, Y., Carcaillet, C., and \*Richard, P. J.H. 2008. Changes in fire regime explain the Holocene rise and fall of *Abies balsamea* in the coniferous forests of western Québec, Canada. *The Holocene* 18: 693-703.

Brown, K.J., Nielsen, A.B., Fitton, R.J., and Hebda, R.J. 2008. Postglacial evolution and spatial differentiation of seasonal temperate rainforest in western Canada. *The Holocene* 18: 715-727.

Bunbury, J., and \*Gajewski, K. 2008. Does a one point sample adequately characterize the lake environment for paleoenvironmental calibration studies? *Journal of Paleolimnology* 39: 511-531.

De Schepper, S., and \*Head, M.J. 2008. New dinoflagellate cyst and acritarch taxa from the Pliocene and Pleistocene of the eastern North Atlantic (DSDP Site 610). *Journal of Systematic Palaeontology* 6: 101-117.

\*Finkelstein, S.A., and \*Gajewski, K. 2007. A palaeolimnological record of diatom community dynamics and late Holocene climatic changes from Prescott Island, Nunavut, central Canadian Arctic. *The Holocene* 17: 803-817.

\*Finkelstein, S.A., and \*Gajewski, K. 2008. Responses of Fragilarioid-dominated diatom assemblages in a small Arctic lake to Holocene climatic changes, Russell Island, Nunavut, Canada. *Journal of Paleolimnology* 40: 1079-1095.

Frechette, B., \*de Vernal, A., Guiot, J., Wolfe, A.P., Miller, G.H., Fredskild, B., Kerwin, M.W., and \*Richard, P.J.H. 2008. Methodological basis for quantitative reconstruction of air temperature and sunshine from pollen assemblages in Arctic Canada and Greenland. *Quaternary Science Reviews* 27: 1197-1216.

Fisher, T.G., \*Yansa, C.H., Lowell, T.V., Lepper, K., Hajas, I. and Ashworth, A. 2008. The chronology, climate, and confusion of the Moorhead Phase of glacial Lake Agassiz: New results from the Ojata Beach, North Dakota, USA. *Quaternary Science Reviews* 27: 1124-1135.

Hu, S., Dilcher, D.L., \*Jarzen, D.M., and Taylor, D.W. 2008. Early steps of angiosperm-pollinator coevolution. *Proceedings of the National Academy of Sciences* 105: 240-245. DOI: 10.1073/pnas.0707989105

Keatley, B.E., Douglas, M.S.V., and \*Smol, J.P. 2008. Evaluating the influence of environmental and spatial variables on diatom species distributions from Melville Island (Canadian High Arctic). *Botany-Botanique* 86: 76-90.

Lim, D.S.S., \*Smol, J.P., and Douglas, M.S.V. 2008. Recent environmental changes on Banks Island (N.W.T., Canadian Arctic) quantified using fossil diatom assemblages. *Journal of Paleolimnology* 40: 385-398.

McDadi, O.; and Hebda, R.J. 2008. Change in historic fire disturbance in a Garry oak (*Quercus garryana*) meadow and Douglas-fir (*Pseudotsuga menziesii*) mosaic, University of Victoria, British Columbia, Canada: A possible link with First Nations and Europeans. *Forest Ecology and Management* 256: 1704-1710.

Muller, S.D., \*Richard, P.J.H., and Talon, B.

2008. Impact of disturbance on the Holocene development of a temperate peatland (Southern Québec). *Vegetation History and Archaeobotany* 17: 713-721.

Paull, T., Hamilton, P. \*Gajewski, K., and LeBlanc, M.. 2008. Numerical analysis of morphological traits of Arctic forms of *Fragilaria* (sensu lato). *Phycologia* 47: 213-224.

\*Peros, M.C., and \*Gajewski, K. 2008. Pollen-based reconstructions of late Holocene climate from the central and western Canadian Arctic. *Journal of Paleolimnology* DOI: 10.1007/s10933-008-9256-9

\*Peros, M.C., and \*Gajewski, K. 2008. Testing the reliability of pollen-based diversity estimates. *Journal of Paleolimnology* 40: 357-368.

\*Peros, M.C., \*Gajewski, K., and Viau, A. 2008. Continental-scale tree population response to rapid climate change, competition and disturbance. *Global Ecology and Biogeography* 17: 658-669. DOI: 10.1111/j.1466-8238.2008.00406.x

Shih, J.G., and \*Finkelstein, S.A. 2008. Range dynamics and invasive tendencies in *Typha latifolia* and *Typha angustifolia* in eastern North America derived from pollen and herbarium records. *Wetlands* 28: 1-16.

\*Smol, J.P. 2008. *Pollution of Lakes and Rivers: A Paleoenvironmental Perspective*. 2nd Edition. Blackwell Publishing, Oxford. 383p.

Teller, J.T., Yang, Z., Boyd, M., Buhay, W.M., McMillan, K., Kling, H.K., and Telka, A.M. 2008. Postglacial sedimentary record and history of West Hawk Lake crater, Manitoba. *Journal of Paleolimnology* 40: 661-668.

Viau, A. and \*Gajewski, K. 2008. Post-glacial paleoclimates of continental boreal

Canada. *Journal of Climate* DOI: 10.1175/2008JCLI2342.1

Walker, I.R., and \*Pellatt, M.G. 2008. Climate change and ecosystem response in the northern Columbia River basin - A paleoenvironmental perspective. *Environmental Reviews* 16: 113-140.

Watchorn, M.A., Hamilton, P.B., Anderson, T.H., Roe, H.M., and Patterson, R.T. 2008. Diatoms and pollen as indicators of water quality and land-use change: a case study from the Oak Ridges Moraine, Southern Ontario, Canada. *Journal of Paleolimnology* 39: 491-509.

Wohlfarth, B.W., Veres, D.S., Ampel, L., \*Lacourse, T., Blaauw, M., Preusser, F., Andrieu-Ponel, V., Kéravis, D., Lallier-Vergès, E., Björck, S., Davies, S., de Beaulieu, J.-L., Risberg, J., Hormes, A., Kasper, H.U., Possnert, G., Reille, M., Thouveny, N., and Zander, A. 2008. Rapid ecosystem response to abrupt climate changes during the last glacial period in western Europe, 40-16 ka. *Geology* 36: 407-410.

\*Yansa, C.H. 2007. Lake records of Paleoindian and Archaic environments of the Northern Plains: The "park oasis" hypothesis. *Plains Anthropologist* 52: 109-144.

\*Yansa, C.H., and Fisher, T.G. 2007. Absence of a Younger Dryas signal along the southern shoreline of Glacial Lake Agassiz in North Dakota during the Moorhead Phase (12,600–11,200 CALYBP). *Current Research in the Pleistocene* 24: 27-30.

Yu, G., Hart, C., \*Vetter, M., and Sauchyn, D. 2008. Quantitative study on pollen-based reconstructions of vegetation history from central Canada. *Science in China Series D-Earth Sciences* 51: 1081-1088.

\* denotes a CAP Member

# Conference Calendar

## 2009

### March 15-18: **Geologic Problem Solving with Microfossils II**

University of Houston, Houston, Texas, USA

[www.sepm.org/activities/researchconferences/microII/microIIhome.htm](http://www.sepm.org/activities/researchconferences/microII/microIIhome.htm)

### May 3-8: **CANQUA 2009**

Simon Fraser University  
Burnaby, British Columbia

[www.mun.ca/canqua/sfu.html](http://www.mun.ca/canqua/sfu.html)

### May 23-27: **GAC/MAC Meeting**

Toronto, Ontario

[www.jointassembly2009.ca/](http://www.jointassembly2009.ca/)

### May 26-30: **Canadian Association of Geographers (CAG) Annual Meeting**

Carleton University, Ottawa, ON

[www.cag-acg.ca/en/cag\\_annual\\_meeting.html](http://www.cag-acg.ca/en/cag_annual_meeting.html)

### June 7-10: **AAPG Annual Convention and Exhibition**

Denver, Colorado, USA

[www.aapg.org/denver/index.cfm](http://www.aapg.org/denver/index.cfm)

### June 21-26: **9th North American Paleontological Convention**

University of Cincinnati  
Cincinnati, Ohio, USA

[www.napc2009.org/](http://www.napc2009.org/)

### June 23-26: **11th International Paleolimnology Symposium**

Gaudalajara, Jalisco, Mexico

[www.geofisica.unam.mx/paleolimnologia/](http://www.geofisica.unam.mx/paleolimnologia/)

### Sept 20-24: **CIMP Faro'09**

*Devonian to Carboniferous Palynology: Contributions to Palaeogeography, Palaeoceanography, and Geotectonics of the Euramerica – Gondwana Collision*

University of the Algarve

Faro, Portugal

[www.cimp.ulg.ac.be/Spores.html](http://www.cimp.ulg.ac.be/Spores.html)

### Sept 27-30: **AASP 42nd Annual Meeting**

Meadowview Convention Center

Kingsport, Tennessee, USA

[www.palynology.org/meetings.html](http://www.palynology.org/meetings.html)

### October 18-21: **GSA 121st Annual Meeting**

Portland, Oregon, USA

Special Session: *Quaternary Paleoenvironments and Geoarchaeology*, organized by Kathleen Nicholls and Catherine Yansa (yansa@msu.edu)

[www.geosociety.org/meetings/2009](http://www.geosociety.org/meetings/2009)

## 2010

### Oct 31-Nov3: **GSA 122nd Annual Meeting**

Denver, Colorado, USA

[www.geosociety.org/meetings/](http://www.geosociety.org/meetings/)

### Date TBA: **GeoCanada 2010**

Calgary, Alberta

More information about the Canadian Association of Palynologists and other material relevant to Canadian palynology can be found on the CAP website:

[www.scirpus.ca/cap/cap.shtml](http://www.scirpus.ca/cap/cap.shtml)

## CAP MEMBERSHIP FORM

Canadian Association of Palynologists / Association Canadienne des Palynologues (CAP) membership is open to all members of the palynological community in Canada and others with an interest in Canadian palynology. The Association is dedicated to the advancement and encouragement of all aspects of palynology in Canada and the promotion of co-operation between palynologists and those engaged in related fields of study. Membership dues include two issues a year of the *CAP Newsletter*, to which all members are invited to contribute. CAP is affiliated with the International Federation of Palynological Societies (IFPS) and members receive two issues of the IFPS newsletter (*PALYNOS*) each year.

CAP membership dues are \$10 per year in Canadian or US funds payable at the beginning of the year. Lapsed members are removed from the mailing list after one year, following a reminder. Members may, if they wish, pay for up to three years in advance. To join, please fill out the membership form, by hand or in Adobe Reader®, and send it with a cheque or money order payable to CAP to:

Dr. Mary Vetter, CAP Secretary-Treasurer, Luther College, University of Regina, Regina, Saskatchewan, S4S 0A2 CANADA

Name: \_\_\_\_\_

Affiliation: \_\_\_\_\_

Address: \_\_\_\_\_

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Tel: \_\_\_\_\_ FAX: \_\_\_\_\_

E-mail: \_\_\_\_\_

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Research interests: \_\_\_\_\_

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May we include your name/address/research interests in the on-line "Directory of Palynologists" in the CAP World Wide Web page?      Yes      No