

Canadian Association of Palynologists  
Association Canadienne des Palynologues

# NEWSLETTER

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December 2017

## PRESIDENT'S MESSAGE

This is my last “President’s Message” during my tenure, and I would like to reiterate what I have stated in my first letter. It was my privilege and responsibility to serve CAP as President for these years. It would’ve been impossible without a great team of the CAP executive (Audrey Limoges, Florin Pendea, Jessie Holst Vincent, Manuel Bringué, and Simon Goring) and help of past presidents (Terri Lacourse and Francine McCarthy). Thank you for your hard work and support!

Audrey Limoges will take up position of CAP’s President starting from January 1<sup>st</sup>, 2018, and I am sure that she will continue serving CAP with full dedication and enthusiasm. It is a pleasure to welcome Ana Pieńkowski as CAP’s new President Elect. She is an Assistant Professor in the Department of Physical Sciences at MacEwan University in Edmonton, with a main focus of her research on palynology and biogeochemistry. Ana has extensive experience in using marine and terrestrial palynomorphs for paleoenvironmental reconstructions in

the Arctic and Antarctic. She is very passionate about training and mentoring the next generation of palynologists, and we are delighted to have her as a new member of the CAP executive.

Once again, I would like to thank all CAP members who attended the 2017 Annual General Meeting (AGU) on October 10<sup>th</sup> at the University of Victoria. Detailed minutes of that meeting and all reports are published in this newsletter. CAP is doing well, but we have to work even harder to engage graduate and undergraduate students in CAP’s activities and encourage their membership. Please remind to all students that the application deadline for the 2018 CAP Student Research Award is March 1.

The 2018 CAP AGM is planned to be held in Calgary on August 7<sup>th</sup>, during the 51<sup>st</sup> Palynological Society (AASP) meeting. I am happy to inform you that CAP will be meeting jointly with AASP, and we will be convening a special session at the meeting (August 5<sup>th</sup>- 9<sup>th</sup>, 2018). If you have any questions, please contact Kimberley Bell (kmball@ucalgary.ca), a local member of the organising committee of the 51<sup>st</sup> Palynological Society (AASP) meeting. Mark your calendar, and I hope to see all of you there.

## CAP EXECUTIVE 2017

*President:* Vera Pospelova

*President-elect:* Audrey Limoges

*Secretary-Treasurer:* Jessie Holst Vincent

*Newsletter Editor:* Florin Pendea

*Website Editor:* Manuel Bringué

*IFPS Councillor:* Simon Goring

Merry Christmas and Happy New Year!

**Vera Pospelova,**

CAP President 2016-2017

[vpospe@uvic.ca](mailto:vpospe@uvic.ca)

## Editor's Notes

Thank you to all who contributed material for this edition of the *CAP Newsletter*.

K. Bell, M. Bringué, V. Bryant, M. Chaput, J. Galloway, V. Pospelova, S. Stolze, M. Vetter, J. Vincent.

## Deadline for Next CAP Newsletter

Please submit items for the next issue of the *CAP Newsletter* (Volume 41, Number 1, May 2018) by April 15, 2018. Conference reports, announcements, field trip reports, notices of new books, dissertation abstracts, book reviews, news, and essays on topics relevant to Canadian palynology are all welcome. Please send contributions to:

**Florin Pendea**

*CAP Newsletter* Editor  
[ifpendea@lakeheadu.ca](mailto:ifpendea@lakeheadu.ca)

## Table of Contents

President's Message .....	1
CAP Executive .....	1
Conference Report.....	2
Members in the news.....	4
CAP AGM 2017 minutes.....	5
CAP Executive Reports.....	9
<i>51st Annual Meeting AASP-CAP</i> .....	13
PALYNFO.....	14
Lab News.....	15
Conference Update.....	17
Student Profiles.....	17
Be inspired!.....	19
Recent Publications. ....	20
Membership Form .....	22

## Conference Report

### Bref compte-rendu de la conférence DINO11 tenue à Bordeaux, France en juillet 2017

Du 17 au 21 juillet dernier s'est tenue la 11<sup>ème</sup> Conférence Internationale sur les Dinoflagellés Modernes et Fossiles (DINO11) dans la belle ville de Bordeaux, sur les bords de la Garonne. Quelle superbe façon d'allier l'utile à l'agréable! L'équipe des organisateurs a bien veillé à ponctuer chaque session de présentations passionnantes avec des entremets délicieux aux saveurs du terroir Aquitain, sans oublier, bien sûr, leur sélection de vins dégustée aux moments opportuns sous le bon soleil de juillet.

La conférence a réuni ~ 120 participants issus des quatre coins du globe, dont plusieurs membres de l'Association Canadienne des Palynologues, sur le campus de l'Université de Bordeaux. Les présentations furent organisées en sessions alternant entre dinoflagellés modernes et fossiles, et la diversité des thématiques abordées a reflété avec brio l'ampleur et la complexité des enjeux qui méritent, plus que jamais, l'attention et le support de la communauté scientifique. Les présentations des trois conférenciers invités ont conclu chaque journée autour des thèmes de l'évolution de la synthèse des toxines chez les dinoflagellés (Sauna Murray), l'évolution de circulation de surface et de la glace de mer dans les mers Nordiques au cours du

Pliocène (Stijn De Schepper), et une vue ensemble de l'évolution des dinoflagellés à partir du registre fossile avec tonalités mo-

image émouvant à Jean-Louis Turon, président honorifique de la conférence, qui a influencé toute une génération (et même plu-



Photo de groupe officielle des participants de DINO11 prise sur le campus de l'Université de Bordeaux, juillet 2017. Trouvez les membres de l'ACP! / Find the CAP members!

dernes (Rob Fensome).

Le soir du 19 juillet, le groupe a participé au banquet sur les prémices du Château Luchey-Alde, à proximité du campus (oui, en pleine ville!), où nous avons tout d'abord visité les vignobles et installations de vinification, puis dégusté le fameux « jus de la treille », que nos hôtes ont su décliner au rythme de chaque plat, autour de grandes tablées conviviales.

Lors de l'ajournement le lendemain, l'équipe des organisateurs a rendu un hom-

sieurs) de chercheurs dans le domaine. L'assemblée a aussi voté l'emplacement de la prochaine conférence, DINO12, en faveur des îles Canari.

Mais tout ne s'est pas terminé là : le matin du 21 juillet fut consacré à quatre ateliers, suivis par une excursion fascinante (et délicieuse) en après-midi qui nous ont fait découvrir des dépôts particulièrement riches en fossiles du Miocène (dont un stratotype) ainsi qu'un récif d'huîtres vieux de 20 millions d'années qui abrite aujourd'hui les celliers de vins liquoreux du Château Loubens

(Sainte-Croix-du-Mont).

Merci de tout cœur aux organisateurs, en particulier Frédérique Eynaud et Laurent

Londeix, pour cette conférence mémorable!

Respectueusement vôtre,  
**Manuel Bringué**



Jean-Louis Turon (3<sup>ème</sup> à partir de la droite), entouré des chercheurs qui perpétuent maintenant sa tradition.



## *Members in the News*

### *Best Undergraduate Student Poster Award*

Laboratory for Paleoclimatology and Climatology Student Michelle Briere wins “Best Undergraduate Student Poster” Award at the 50<sup>th</sup> Annual Meeting of the Archaeological Association in Gatineau, Québec in May 2017.

University of Ottawa student Michelle Briere has won an award for her undergraduate thesis project, entitled “Eastern Beringian Paleodemography in Relation to Late-Glacial and Holocene Climate Change”, which she presented as a poster at the Canadian Archaeological Association meeting

this past spring.

Using archaeological radiocarbon dates from the CARD, Briere modelled human population over the last 15000 years in Eastern Beringia, the longest-inhabited region of the Western Hemisphere. She then compared demographic changes to regional climate reconstructions and vegetation patterns inferred from palynological data, and found synchronicities between population, cultural, climate, and vegetation changes. A manuscript for publication is currently in preparation.

**2017 CAP  
ANNUAL GENERAL  
MEETING AGENDA AND  
MINUTES**

**University of Victoria, Victoria,  
British Columbia  
October 10, 2017**

**Agenda**

1. Acceptance of Agenda
2. Review and acceptance of minutes from 2016 AGM, Victoria, BC
3. Business Arising from Minutes
4. President's Report, Vera Pospelova
5. Secretary-Treasurer's Report, Jessie Vincent
6. Auditor's Statement, Mary A. Vetter
7. Newsletter Editor's Report, Florin Pendea
8. Website Editor's Report, Manuel Bringué
9. IFPS Councillor's Report, Simon Goring
10. Election of CAP Executive (President Elect for 2018-2019)
11. Appointment of auditor
12. Location for 2018 AGM
13. Priorities and Goals
14. Other Business
15. Adjourn

**Members present:**

Vera Pospelova (Chair), Manuel Bringué (Recording Secretary), Maximilien Genest, Simon Goring\*, Jonathan Hughes\*, Carl Jonsson, Terri Lacourse, Audrey Limoges\*, Sandy McLachlan, Anna Pieńkowski\*, Jin-Si Over, Mary Vetter\*, Jessie Holst Vincent\*. Quorum reached.

\*via Skype

Meeting called to order by Vera Pospelova, 11:00 am PDT

**1. Acceptance of agenda**

Vera P. provided paper copies to members present, and emailed the agenda to members attending through Skype. Vera P. asked for additions to the agenda. Jessie H.V. noted that the issue of moving CAP's mailing address should be added, Vera P. ensured it would be discussed under Other business. Motion to accept the agenda by Manuel B., seconded by Carl J. Agenda accepted.

Agenda and all reports from the Executive are appended to the Minutes.

**2. Review and acceptance of Minutes from 2016 AGM, Victoria, BC.**

Motion to accept minutes as presented by Terri L., seconded by Simon G. Minutes accepted.

**3. Business arising from Minutes:** No new business arising.

**4. President's report: Vera Pospelova**

Vera P. thanked Jessie for hard work and responsiveness in tackling many different issues over the past year, and Francine

McCarthy and Terri L. for continued support. Vera noted that the new By-laws are posted on the website, that Audrey L. will take over as President in January 2018, and that the next AGM will be held in Calgary at the joint AASP-CAP meeting.

CAP will sponsor one special session at the AASP-CAP meeting (Aug. 6-9, 2017). Vera P. asked that members encourage everyone in the Association to participate. Simon G. brought up that the timing of this AASP-CAP joint meeting is the same as the CAN-QUA-AMQUA meeting in Ottawa (Aug. 7-11), which several members are planning on attending. Simon G. suggested holding a 'satellite' meeting in Ottawa, with a live connection to the AGM in Calgary. Mary V. added that having an 'AGM meeting' at both conferences could be a good opportunity to recruit new members.

Finances are in good standing. Membership numbers are low, but some members have not yet paid their 2017 dues; numbers should increase shortly. Jessie H.V. will send additional e-mail reminders.

Vera P. would like to see members more actively involved in the Association. She had hoped for more interest, discussion and action from members when she rose the issue of (under)funding of palynology in Canada compared to other fields, in the Dec. 2016 issue of the CAP Newsletter. Our community of palynologists may be underrepresented in NSERC committees that overlook funding. Vera P. would like to boost interest in this issue and action is possible by contacting NSERC.

## **5. Secretary-Treasurer's report: Jessie Holst Vincent**

Jessie H.V. thanked Mary V. for her help in reviewing CAP's finances at a short notice. Membership is down, but numbers should go up. Offering e-transfers as an option to pay membership dues brought three memberships right away – we should continue offering this option.

The account balance is a little high for two reasons: the last student award has not yet been cashed, and IFPS dues have not yet been claimed.

Jessie H.V. encourages students to contribute to the newsletter. Vera P. added that graduate students should be encouraged to submit a thesis report.

Mary V. offered to write cheques in USD currency (for instance for IFPS dues) from her own account and be reimbursed later, to avoid foreign currency transaction fees. However, the consensus was that using personal accounts is not necessary as the fees for certified bank cheques are low and these transactions are infrequent.

## **6. Auditor's Statement: Mary A. Vetter**

Mary V. and Jessie H.V. reiterated that CAP's finances are in good order.

## **7. Newsletter Editor's report: Florin Pendea (in absentia)**

Florin could not attend the AGM; his report was read aloud by Vera P. Two new issues of the Newsletter were distributed over the past year. Florin P. invites new contributions for upcoming issues.

## 8. Website Editor's report: Manuel Bringué

The new website was released in January. Manuel B. thanked Alwynne Beaudoin for her help ensuring a smooth transition. Views since the release are above 100 hits per month. Manuel B. welcomed suggestions on how to improve content and appearance of the website, encouraged contributions in French, and invited members to send pictures of palynomorphs for the website.

Vera P. noted that the address posted on the IFPS website still refers to the old CAP website. Simon G. will ask J.-N. Haas to update the link. Vera P. suggested posting links to affiliated societies on the CAP website as well.

Jessie H.V. suggested that the possibility of using e-transfers to pay membership dues should be posted on the website. Jonathan H. added there should be such a statement on the front page. The website will refer prospective or renewing members to contact Jessie H.V. for instructions on how to pay via e-transfer. Members will be encouraged to pay their dues for 3 years.

## 9. CAP Councillor to IFPS's report: Simon Goring

Simon G. provided an update on the IFPS Council, including the three new Vice Presidents. The next IFPS meeting is in Prague in 2020. Simon noted that the challenge of IFPS meetings is travelling expenses; the location for the next IFPS meeting (Prague) should be relatively affordable.

Terri L. moved to accept all reports, seconded by Manuel B. Reports accepted.

## 10. Election of CAP executive

The May Newsletter included a call for nominations for President Elect (2018-2019). Anna Pieńkowski expressed interest in the position via email in advance of the AGM. Vera asked if there were any additional nominations for President Elect. Receiving none, Anna P. was proclaimed as the new President-Elect, effective January 2018.

## 11. Appointment of auditor

Vera asked for suggestions for future auditors. Sarah Finkelstein and Mary V. were suggested as potential candidates.

## 12. Location for 2018 AGM

Vera P. noted that the next CAP AGM will be held in Calgary, Aug. 7<sup>th</sup>, at the AASP-CAP joint meeting. The exact time still needs to be set. Since some CAP members are likely to attend the CANQUA-AMQUA meeting that will be held in Ottawa at the same time in Aug. 2018, an effort will be made to connect CAP members who are in Ottawa, so that they can meet as a group and participate in the CAP AGM remotely.

## 13. Priorities and goals

The discussion focussed on membership renewal and how to attract new members:

Vera P. suggested that CAP put effort into attracting young palynologists to join the Association. It was proposed to email departments students directly about joining CAP.

Vera P. emphasized that conferences are good opportunities to recruit new members. Carl J. and Jin-Si O. proposed having a CAP booth at conferences. The cost of a booth could be sizable for CAP's budget, but some meetings (e.g. AASP) may not charge CAP

booth fees. Vera P. suggested that having a conference poster promoting CAP could be an efficient option. The idea of having printed membership forms ready to give away was supported by many.

Simon G. suggested distributing high-resolution CAP logos and links to website, which would make it easier to promote CAP membership and resources.

Jonathan H. explained that while promoting CAP to undergraduate students, it is not easy to convince them that their gain in joining CAP will be worth their \$10 investment. The ensuing discussion over the question '*what's the gain for students?*' lead to the following list of incentives: access to the Newsletter (although not member-exclusive), access to the CAP Student Award, possibility of networking, interacting with experts from very diverse backgrounds, and positive impact on one's CV.

Simon G. proposed that PIs could send small projects for undergraduate students to the Website Editor for posting. It was suggested that these could appear on an 'Opportunities' page on the website with any positions related to palynology.

Jonathan H. suggested restricting some privileges to members, as an incentive for interested parties to join the association. Simon G. suggested creating a CAP member email list. The idea was well received.

Maximilien G. added that CAP should be willing to spend money to increase membership, for instance in the form of social and networking events.

#### 14. Other business

Attendees discussed splitting the \$300 Student Research Award into one for MSc and one for PhD because judges in the last competition ranked applications from junior and more senior students very differently. Concern was raised that an award of only \$150 would not attract many applications. The general consensus was that one award is appropriate given that few applications (2-5) are typically received. Terri L. suggested increasing the amount of the award and Simon G. suggested \$500 should be a minimum. Jessie H.V. and Mary V. confirmed that \$500 is feasible given CAP finances, at least in the short term. The account balance must remain about \$5000 to avoid fees. All agreed to increasing the Award to \$500 and revisiting the issue in a few years. Jonathan H. suggested adding a section to the Membership form asking for additional (optional) contributions towards the award.

Audrey L. suggested that a clearer definition of evaluation criteria would help in reaching consensus over different applications, an idea supported by all. Terri L. noted that a list of weighted criteria was used when she chaired the Award Adjudication Committee. She agreed to share it with the current Executive.

The issue of whether CAP needs to purchase insurance was raised. Vera P. explained that there is no need to purchase insurance since e-transfers are secure and the Association is not involved in any potentially dangerous activities such as field trips.

Vera P. raised the issue of adding a non-voting director to the Executive Committee

who would have signing authority, in case both the President and Secretary-Treasurer are indisposed. Jessie H.V. noted that this is not necessary since all directors have signing authority.

Changing CAP's official mailing address involves a \$200 fee from Corporation Canada if the new address is not in Saskatchewan, where it is currently. Mary V. agreed to keep her address as the official address for now in order to avoid those fees.

### **15. Adjournment**

Carl J. moved to adjourn the AGM, seconded by Manuel B. Meeting adjourned at ~ 1pm.

## **2017 REPORTS OF CAP EXECUTIVE DIRECTORS**

### **CAP PRESIDENT'S REPORT**

This is my final CAP President's Report, as my term ends by the end of this year, when Audrey Limoges will take up this position starting from January 2018. I would like to thank all CAP members for continuous support of our organization, and the Executive team for devoted and smooth running of the Association. Thank you to Audrey Limoges, Florin Pendea, Jessie Holst Vincent, Manuel Bringué and Simon Goring. I want to express my gratitude to Terri Lacourse for continuing insightful guidance and Mary Vetter for serving as CAP's Auditor. Your hard work and active response made my term as President very gratifying. It has been my privilege and pleasure to serve CAP in this position and as President Elect over the last three years, and I am delighted to see the next generation of Canadian palynologists

being enthusiastically involved in CAP activities and taking roles as members of the CAP Executive.

Our new By-laws were approved last year, and that allows all CAP members to participate at the Annual General Meeting (AGM) and to vote via Skype (or any other Internet media) or by phone. I am looking forward to seeing the anticipated increase in CAP member's attendance at our next AGM on October 10<sup>th</sup> in Victoria. From now on, geographical distance cannot be an excuse for not being present at the meeting! The following 2018 CAP AGM is to be held in Calgary on August 7<sup>th</sup>, during the 51<sup>st</sup> Palynological Society (AASP) meeting. I am happy to announce that CAP will be meeting jointly with AASP, and we will be convening a special session at the meeting (August 5<sup>th</sup>- 9<sup>th</sup>, 2018). Please let me know if you have suggestions on the title of our special sessions that CAP will submit for the joint meeting in November. Please mark your calendar and plan to attend!

In general, our finances are fine and most of our generated income has been spent to cover the CAP Annual Student Research Award and the International Federation of Palynological Societies (IFPS) fees. The Student Research Award was established to recognize students' contributions to palynological research and is annually awarded to one student. This year, the award committee found itself in a difficult situation by comparing applications from students at early and late career stages. To avoid this rather awkward situation, we propose to split the CAP Student Research Award into two awards, and evaluate M.Sc. and Ph.D. applications separately.

The Association is doing well, but the declining number of members continues to be a concern. We need to discuss where and how we want to move forward, as well as how to increase new membership and motivate past CAP members to re-join the Association. I

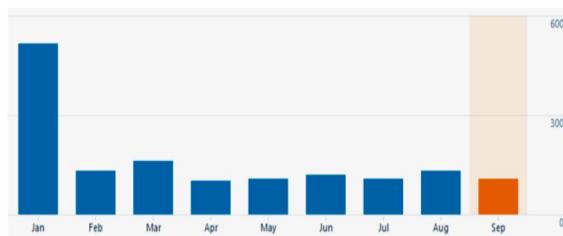
encourage you all to submit ideas and suggestions on what we should do to reverse this trend to the next issue of the CAP Newsletter. Finally, I am inviting all CAP members to visit our website and submit fresh updates and images of palynomorphs for display: <https://capacp.wordpress.com/>

Respectfully submitted,

**Vera Pospelova**  
CAP President, 2016-2017  
October 5, 2017

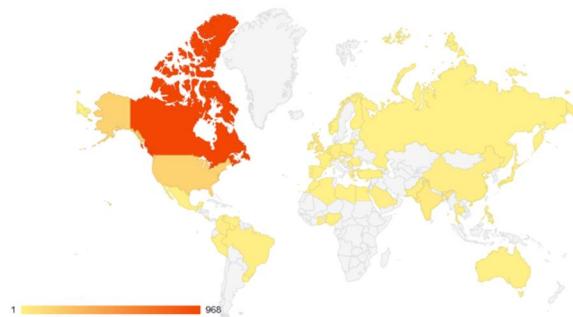
### CAP Website Editor's Report, 2017

This is my first report as a website editor, and I would like to thank Alwynne Beaudoin (CAP's previous and long-standing website editor) for her help in ensuring a smooth transition, and for her long and considerable service to the association.



**Fig. 1.** Total monthly views (all pages combined) from January to September 2017.

The new CAP website ([capacp.wordpress.com](https://capacp.wordpress.com)) was launched in January 2017. As agreed at the October 2016 AGM, it is hosted by a free platform that fits the basic needs of the association. Our options for a domain name were limited, but otherwise the platform is quite flexible and makes the website easy to maintain. It was designed to be sober but practical. Although the new website has a fresh new face, most of the material was transferred directly from Alwynne's presentation. I actually transferred only a fraction of the content that Alwynne had posted over the years, but



**Fig. 2.** Website views per country since January 2017. Out of a total of 1,466 views, Canada has 968, the US 164, the UK 54, India has 36, and all other countries identified on the map have less than 13 views.

she keeps a lot of the original material on her personal website ([www.scirpus.ca](http://www.scirpus.ca)).

Overall visits to the new site totaled 1,466 for the January to September 2017 period. January had over 500 views, most of them likely from the members of the executive who have helped testing the site before its official release, and from members checking it out once the announcement was made. Since then, monthly visits have been steadily over 100 (Fig. 1). It is unclear how many of those visits are from 'bots'. As is to be expected, most viewers accessed the site from Canada, but the site also attracted viewers from the US, UK, India and several other countries (Fig. 2).

I invite members to send me pictures of palynomorphs to help enhance the appearance of the website. The Executive also encourages contributions in French, in order to better reflect the diversity amongst the CAP ranks. Of course, I welcome comments or suggestions on ways to improve the content, outreach and look of the website!

Respectfully submitted,

**Manuel Bringué**  
CAP Website Editor  
September 29, 2017

## CAP Secretary/Treasurer Report

### 5 October 2017

**1. Membership:** As of 24 August 2017 CAP has 43 members in good standing. These members include those who have paid dues and students who have won complimentary memberships through the CAP Student Award.

We have three new members this year. Welcome to Anne Nguyen (University of Calgary), Christine Poletto (University of Alberta) and Anna Pieńkowski (MacEwan University).

Following Mary Vetter's tradition, I have included a chart of our membership over the past 13 years.

Year	Members
2005	36
2006	47
2007	51
2008	58
2009	66
2010	64
2011	66
2012	65
2013	65
2014	60
2015	58
2016	54
2017	43

As you can see, we have recently experienced a rapid decline in membership.

## 2. Financial Report

For the period ending 5 October 2017, the

balance in the CAP account is \$7163.27 (compared to \$6774.96 in 2016). This amount does not reflect the 2017 Student Award (\$300) as that cheque remains outstanding. I have also not yet received details from the IFPS for payment of our annual dues (~\$110 based on previous records). After IFPS dues are paid and the Student Award is withdrawn our balance will be ~\$6753.27.

In general, 2017 membership receipts do not support expenditures. For example, here is a breakdown of annual income and expenditures with 43 members:

-membership fees	\$430
-CAP Student Award	\$300
-IFPS dues approx..	\$110
-fees for filing annual report to Corporations Canada	\$20

This leaves an annual balance of approximately \$0. If we wish to continue supporting Student Awards and providing coffee breaks at conferences, it is critical that we increase our membership.

## 3. Recommendations:

- In mid-September I will begin an email campaign to our CAP members encouraging them to promote CAP membership to students and colleagues.
- In mid-September I will email all recent members who have not paid their dues and offer the option of an e-transfer to see if we can encourage some past members to return. If this is successful, perhaps we can add the e-transfer option to our website to make new memberships easier to obtain. **Note:** I have emailed expired members with the option to use e-transfers. I will update the executive on the results.

As has been previously recommended by Mary, CAP should continue to use some of its accrued bank balance to actively promote CAP. Our expenses are small and we could afford a focused initiative while keeping the

bank account balance above \$5000, the minimum to maintain a waiver of monthly banking fees.

Respectfully submitted,

**Jessie Vincent**  
CAP Secretary-Treasurer

### CAP FINANCIAL Audit 2017



27 September 2017  
Jessie H. Vincent  
CAP Secretary/Treasurer  
81 Blake Street  
Hamilton, ON L8M 2S7

Dear Jessie:

I have reviewed the annual return, financial statements, bank statements, dues payments and membership documents for the Canadian Association of Palynologists (CAP). These documents and the AGM financial report provide a full and fair account of the financial affairs of CAP for the period from 24 September 2016 – 24 August 2017. I consider the financial affairs of CAP to be in good order.

Sincerely,

**Mary A. Vetter**  
Professor Emerita

### CAP NEWSLETTER EDITOR'S REPORT, OCTOBER 3, 2017

Since my last report, two issues of the CAP Newsletter have been produced. The December 2016 Newsletter (Vol. 39, No. 2) had 30 pages and was distributed to CAP members on January 8, 2017. Most notably, the December 2016 newsletter featured the updated CAP bylaws and an interesting article on the palynology of the Ukrainian shelf of the Black Sea by Mudryk et al. As per CAP Bylaws, this issue also included minutes of the 2016 CAP Annual General Meeting held at the University of Victoria, BC.

The May 2017 Newsletter (Vol. 40, No. 1) was distributed to members on June 5<sup>th</sup>, 2017. It consisted of 20 pages and included a short article on this year's CAP student award recipient – Ms. Magdalena Sobol – and information on our new CAP website. The President's Message and Members in the News sections brought up-to-date information to the Canadian palynological community. We also celebrated the life and work of one of our most distinguished colleagues – Dr. Art Sweet, who recently passed away.

I would like to remind our members that our past Newsletters are available in electronic format on the CAP website. Contributions for the next issue of the Newsletter will be accepted until November 15, 2017.

Respectfully submitted,

**Florin Pendea**  
CAP Newsletter Editor  
October 3<sup>rd</sup>, 2017

# 51st Annual Meeting of AASP- The Palynological Society joint with the Canadian Association of Palynologists (CAP) Annual General Meeting

*Calgary, Alberta, Canada*  
August 5th - 9th, 2018



## First Circular

We are pleased to announce that the 51st Annual Meeting of AASP-The Palynological Society will be held in Calgary, Alberta, Canada. Calgary is ideally located between the Canadian Rocky Mountains and the Alberta Badlands and is easily accessed by the Calgary International Airport (YYC) featuring a new state-of-the-art international terminal. Exciting field trips featuring local geology and paleontology will be offered before and after the technical program held Monday, August 6th through Wednesday, August 8th.



*Badlands near Drumheller, Alberta*



### **Organizing Committee:**

Kimberley Bell ([kmball@ucalgary.ca](mailto:kmball@ucalgary.ca))  
Thomas Demchuk ([tdemchuk@swbell.net](mailto:tdemchuk@swbell.net))

The venue for this meeting is the recently renovated Calgary Marriott Downtown Hotel boasting exceptional location, creative Canadian dining and a stylish whisky bar. The hotel is located adjacent to Stephen Avenue; a major pedestrian mall known for its restaurants, pubs, bars, cafes, shopping and entertainment venues. Public transportation, including light rapid transit, is easily accessed from the conference venue. Transportation to the hotel area from the airport is available via taxi, public transportation or airport shuttle (reservation required). A block of rooms has been secured at the Marriott at a negotiated rate of \$199 CAD/night.

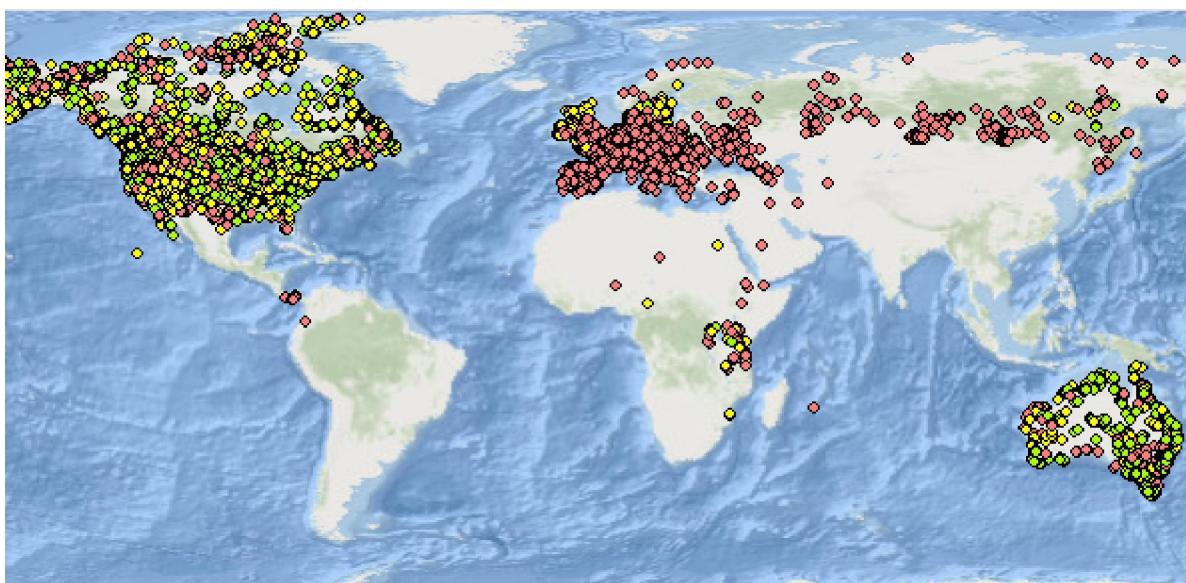
# PALYINFO

## Websites and Databases

The new website for the Canadian Archaeological Radiocarbon Database (CARD2.0) is now available at [www.canadianarchaeology.ca](http://www.canadianarchaeology.ca). The CARD is a global database which contains over 73,000 culturally-significant archaeological radiocarbon dates derived from fossils collected during archaeological digs. Archaeo-

University of Ottawa's Department of Geography, Environment and Geomatics webpage (<http://arts.uottawa.ca/geography/news/department-geg-researchers-helping-build-worlds-largest-database-archaeological-radiocarbon>), and in *Nature*'s weekly bulletin (<http://www.nature.com/news/worlds-largest-hoard-of-carbon-dates-goes-global-1.22287>).

The motivation behind the CARD is to create a single, consistent, digital resource of archaeological radiocarbon dates that is openly-accessible to scientists from all fields of research – something that we hope will encourage much-needed interdisciplinary



*The distribution of archaeological radiocarbon dates in the CARD. Light green: < 1000 BP, yellow: < 5000 BP, pink: > 5000 BP. Adapted from [www.canadianarchaeology.ca](http://www.canadianarchaeology.ca).*

logical data are increasingly being analyzed in relation to paleoecological records (e.g., pollen, charcoal) since they provide an estimate of past population density which is useful in the interpretation of past land use and land cover change and fire occurrence.

The CARD was recently featured on the

collaborations within the paleoscience community. New contributions are being added regularly, and we thank all those that have previously contributed or plan on contributing in the future, since this is what makes the CARD a valuable resource.

Please see the publications listed below for more detailed descriptions of the CARD and how it can be used in combination with paly-

nological data. Inquiries can be sent to CARD advisory committee member Michelle Chaput (mchaput@uottawa.ca).

#### Selected Publications related to the CARD:

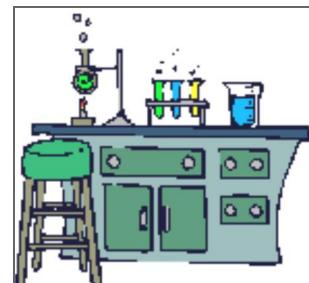
Chaput, M.A., and Gajewski, K. 2016. Radiocarbon Dates as Estimates of Ancient Human Population Size. *Anthropocene* 15: 3-12. <https://doi.org/10.1016/j.ancene.2015.10.002>.

Chaput, M.A., Kriesche, B., Betts, M., Martindale, A., Kulik, R., Schmidt, V. and Gajewski, K. 2015. Spatiotemporal Distribution of Holocene Populations in North America. *PNAS (USA)* 112(39): 12127-12132. doi:10.1073/pnas.1505657112.

Gajewski, K., Munoz, S., Peros, M., Viau, M., Morlan, R., and Betts, M. 2011. The Canadian Archaeological Radiocarbon Database (CARD): archaeological radiocarbon dates in North America and their paleoenvironmental context. *Radiocarbon* 53: 371-394.

Munoz, S., Gajewski, K. and Peros, M. 2010. Synchronous environmental and cultural change in the prehistory of the northeastern United States. *PNAS (USA)* 107(51): 22008-22013. doi: 10.1073/pnas.1005764107.

Peros, M., Munoz, S., Gajewski, K. and Viau, A. 2010. Prehistoric demography of North America inferred from radiocarbon data. *Journal of Archaeological Science* 37: 656-664. doi: 10.1016/j.jas.2009.10.029.



## LAB NEWS

### The Laboratory for Paleoclimatology and Climatology (University of Ottawa) and Canadian Geographic Education team up

by Michelle Chaput,  
Laboratory for Paleoclimatology and Climatology, University of Ottawa

Our lab teamed up with CAN GEO Education to show teachers how paleoscience can be taught in elementary and secondary schools. Canadian Geographic Education (Can Geo Education) is a delegation of the Royal Canadian Geographical Society (RCGS) responsible for bringing geographic education to indoor and outdoor classrooms across Canada. Can Geo Education partners with students, educators and the public to promote geographic awareness and to encourage all Canadians to become geoliterate.

On Wednesday July 12th, 2017, fourteen Canadian primary and secondary school teachers visited the Department of Geography, Environment and Geomatics at the University of Ottawa as part of the 2017 Can Geo Education Summer Institute. Michelle Chaput, a PhD student in the Laboratory for Paleoclimatology and Climatology, spent the afternoon with the teachers

and the Can Geo Education team, and shared her views on the importance of geographical education, the need for paleosci- ence to be introduced to the younger genera-

take water and plant samples that they later analyzed under light microscopes in the physical geography laboratory. Chaput helped the teachers identify zoo-



*Michelle Chaput (grey t-shirt) with the summer institute participants in the geography laboratory at the University of Ottawa. Photo by Sara Black (Can Geo Education).*

tion, and suggested fieldwork activities to be included in curricula when possible.

Chaput began the afternoon with a presentation about her own adventures in the field that involved collecting lake sediment cores and analyzing microfossils for climate change reconstructions. Kathryn Laferriere, the Executive Coordinator of the Canadian Association of Geographers (CAG) who's main office is now located in the uOttawa Geography building, also spoke to group, inviting them to participate in CAG activities and make use of the various resources available to teachers on the CAG website. The group then visited the Rideau Canal to

plankton and phytoplankton and paid special attention to the diverse group of diatoms living in the water. The teachers were also briefly introduced to palynology and had the opportunity to look at pollen reference collections under the microscope.

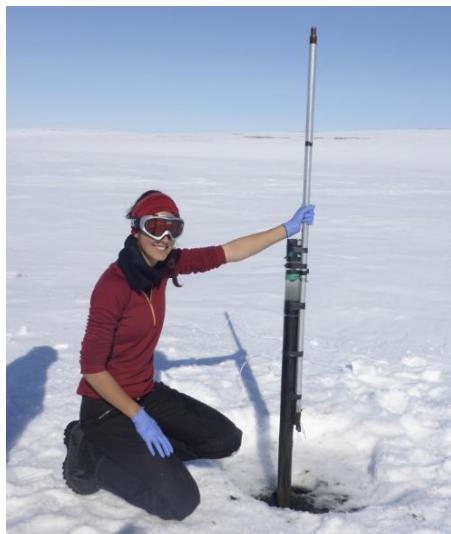
Many of the teachers expressed their sincere interest in paleoecology, climatology and field studies. Their hope is to incorporate these subjects in their teachings, and encourage future generations to better-understand the importance of geography and environmental awareness.

# Student Profiles

Camille Tamo,  
MSc Candidate  
Laboratory for Paleoclimatology  
and Climatology, University of Ottawa,

Tamo is working on creating a high temporal resolution climate reconstruction using several lake sediment cores from across the Canadian Arctic Archipelago.

Using a multi-proxy approach, Tamo is reconstructing past temperatures changes to contribute to the understanding of the spatio-temporal complexity of climate variability in the Canadian Arctic, specifically during the Medieval Warm Period



Camille Tamo taking sediment core samples.  
Photo by Konrad Gajewski.

and the Little Ice Age. Tamo and Dr. Konrad Gajewski have conducted two field seasons in the summers of 2016 and 2017 to obtain sediment cores from lakes on Bathurst Island and Prince of Wales Island. Despite persistent fog, freezing rain, and blizzards, they managed to obtain surface samples from

lakes on both islands that are in the process of being analyzed for pollen, biogenic silica, loss-on-ignition, and magnetic susceptibility and are being dated using lead-210 and radiocarbon dating techniques.

# Conference update

By Michelle Chaput,  
Laboratory for Paleoclimatology and  
Climatology, University of Ottawa

The fifth Past Global Changes (PAGES) Open Science Meeting (OSM) took place in Zaragoza, Spain, from May 9<sup>th</sup> to May 13<sup>th</sup>, 2017. This event, held every four years, is the ultimate opportunity for international paleoscientists to meet, learn about ongoing research and collaborate on new ideas. Zaragoza provided the perfect venue; participants were able to visit landmarks such as the Basílica del Pilar and the Plaza del Pilar and feast on gastronomic treats!

Following the PAGES OSM, the Land-Cover6k working group (a branch of PAGES that specifically targets research on global prehistoric land use and land cover change), had their 3<sup>rd</sup> general workshop meeting in Zaragoza. Palynologists, ecologists and modellers from Canada, the United States, Europe, Latin America, Africa, Asia, India met and discussed how existing quantitative land-use and land-cover reconstructions should be synthesized and formatted to be useful for climate modelling purposes. Many quantitative reconstructions of land cover are now available worldwide due to an increase in the use of the Landscape Reconstruction Algorithm (Sugita, 2007a, 2007b) which corrects for pollen over- and under-



*Basilica del Pilar in Zaragoza. Photo by Michelle Chaput.*



*Plaza del Pilar in Zaragoza. Photo by Michelle Chaput.*

representation in fossil records and taxon-specific pollen productivities. Members of the LandCover6k working group plan on continuing with this model to produce com-

parative estimates of global land cover change for the last 10,000 years. Emphasis is currently being placed on producing maps of

land cover change for North America that are comparable to those previously produced for Europe (Trondman et al., 2015), since numerous pollen records and lake data are now available in the Neotoma Paleoecology Database (<https://www.neotomadb.org>).

If you are interested in learning more about pollen productivity estimates, and land use and land cover reconstruction, or would like to join the working group, please visit <https://lc6ksubgroup9.wordpress.com/> and <http://pastglobalchanges.org/ini/wg/landcover6k/intro>.

The latest PAGES magazine is available at <https://doi.org/10.22498/pages.25.2>.

*References:*

Sugita, S. 2007a. Theory of quantitative reconstruction of vegetation I: pollen from large sites REVEALS regional vegetation composition. *Holocene* 17(2): 229-241. <https://doi.org/10.1177/0959683607075837>.

Sugita, S. 2007b. Theory of quantitative reconstruction of vegetation II: all you need is LOVE. *Holocene* 17(2): 243-257. <https://doi.org/10.1177/0959683607075838>.

Trondman A.-K., Gaillard M.-J., Mazier, F. et al. 2015. Pollen-based quantitative reconstructions of Holocene regional vegetation cover (plant functional types and land-cover types) in Europe suitable for climate modelling. *Global Change Biology* 21:676–697. doi:10.1111/gcb.12737.



## Be Inspired!

A real-life story of courage and love for palynology from professor Vaughan Bryant

View at:

<http://www.kbtx.com/content/news/Texas-AM-professor-diagnosed-with-leukemia-does-the-unthinkable-449331263.html>

Happy New Year!



Bonne Année !



## Recent Publications

\* denotes a CAP member

\*Chaput, M.A., and Chevalier, M. (2017) What should the research questions and priorities in paleoscience be for the next ten years? *Past Global Changes Magazine* 25(2): 104. <https://doi.org/10.22498/pages.25.2.104>.

Courtney Mustaphi, C., \*Gajewski, K., Marchant, R. and Rosqvist, G. (2017) A late Holocene pollen record **from** proglacial Oblong Tarn, Mount Kenya. *PLoS ONE* 12(9): e0184925. <https://doi.org/10.1371/journal.pone.0184925>

Dranga, S., Hayles, S. and \*Gajewski, K. (2017) Synthesis of limnological data from lakes and ponds across Arctic and Boreal Canada. *Arctic Science* <https://doi.org/10.1139/AS-2017-0039>.

\*Galloway, J.M., Swindles, G.T., Jamieson, H.E., Palmer, M., Parsons, M.B., Sanei, H., Macumber, A.L., Patterson, R.T., Falck, H. (2017) Organic matter control on the distribution of arsenic in lake sediments impacted by ~65 years of gold ore processing in subarctic Canada. *Science of the Total Environment* (in press).

Ladd, M., Viau, A.E., Way, R.G., \*Gajewski, K. and Sawada, M.C. (2017)

Variations in precipitation over North America over the past 2000 years. *Holocene*. <https://doi.org/10.1177/0959683617735583>.

\*Li., Z., \*Pospelova, V., Liu, L., Zhou, R., Song. B. (2017) High-resolution palynological record of Holocene climatic and oceanographic changes in the northern South China Sea. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 483:94-124.

Luo, Z., Yang, W., Leaw, C.P., \*Pospelova, V., Bilien, G., Leaw, G.R., Lim, P.T., Gu, H. (2017) Cryptic diversity within the harmful dinoflagellate *Akashiwo sanguinea* in coastal Chinese waters is related to differentiated ecological niches. *Harmful Algae*, 66:88–96.

Mertens, K.N., Gu, H., \*Pospelova, V., Chomérat, N., Nézan, E., Gurdebeke, P.R., Bogus, K., Vrielinck, H., Rumebe, M., Meteigner, C. (2017) First record of resting cysts of the benthic dinoflagellate *Prorocentrum leve* in a natural reservoir in Gujan-Mestras, Gironde, France. *Journal of Phycology*, 53:1193-1205.

Mertens, K.N., Takano, Y., Gu, H., Bagheri, S., \*Pospelova, V., Matsuoka, K. (2017) Cyst-theca relationship and phylogenetic position of *Impagidinium caspienense* incubated from Caspian Sea surface sediments: evidence for heterospory within gonyaulacoid dinoflagellates. *Journal of Eukaryotic Microbiology*, 64(6):829-842.

Neil, K. and \*Gajewski, K. (2017) The impacts of late-Holocene climate variability and watershed-lake interactions on diatom community structure in Lac Brûlé, southern Québec. *Ecosphere* 8(7): e01886. 10.1002/

ecs2.1886.

Nichols, H., \*Stolze, S. (2017) Data descriptor: Modern pollen data from the Canadian Arctic, 1972-1973. *Scientific Data* 4:170065. DOI: 10.1038/sdata.2017.65

Outridge, P.M., Sanei, H., Courtney Mustaphi, C. and \*Gajewski, K. (2017) Holocene climate change influences on trace metal and organic matter geochemistry over 7000 years in a varved Arctic lake sediment profile. *Applied Geochemistry* 78: 35-48. dx.doi.org/10.1016/j.apgeochem.2016.11.018.

PAGES2k Consortium: 87 authors, including \*Gajewski, K. (2017) A global multi-proxy database for temperature reconstructions of the Common Era. *Scientific Data* 4:170088. 10.1038/sdata.2017.88.

\*Pendea, I.F., Ponomareva, V., Bourgeois, J., Zubrow, E.B., Portnyagin, M., Ponkratova, I., Harmsen, H. & Korosec, G. (2017) Late Glacial to Holocene paleoenvironmental change on the northwestern Pacific seaboard, Kamchatka Peninsula (Russia). *Quaternary Science Reviews* 157: 14-28.

\*Price, A.M., Coffin, M.R.S., \*Pospelova, V., Latimer, J.S., \*Chmura, G.L. (2017) Effect of nutrients on dinoflagellate cyst assemblages across estuaries of the NW Atlantic. *Marine Pollution Bulletin*, 121(1-2): 339-351.

Ponomareva, V., Portnyagin, M., \*Pendea, I. F., Zelenin, E., Bourgeois, J., Pinegina, T., & Kozhurin, A. (2017). A full holocene tephro-chronology for the Kamchatsky Peninsula

region: Applications from Kamchatka to North America. *Quaternary Science Reviews*, 168: 101-122.

Segundo-Métay, I., Bocco, G., Velazquez, A. and \*Gajewski, K. (2017) On the relationship between landforms and land use in tropical dry developing countries. A GIS and multivariate statistical approach. *Investigaciones Geográficas, Boletín del Instituto de Geografía* 93: 3-19. <https://doi.org/10.14350/rieg.56438>.

Spooner, I., Principato, S., Hill, N., White, H., Dunnington, D., Neily, T., \*Stolze, S. (2017) Late Holocene records of changing moisture regime from wetlands in southwestern Nova Scotia, Canada: implications for wetland conservation and restoration. *Northeastern Naturalist*, 24: 331-348.

\*Stolze, S., Monecke, T. (2017) Holocene history of 'non-native' trees in Ireland. *Review of Palaeobotany and Palynology*, 244: 347-355.

Swindles, G.T. Morris, P.J., Whitney, B., \*Galloway, J.M., Gałka, M., Gallego-Sala, A., Macumber, A.L., Mullan, D., Smith, M.W., Amesbury, M.J., Roland, T.P., Sanei, H., Patterson, R.T., Sanderson, N., Parry, L., Charman, D.J., Lopez, O., Valderamma, E., Watson, E.J., Ivanovic, R.F., Valdes, P.J., Turner, T.E. and Lähteenoja, O. (2017) Ecosystem state shifts during long-term development of an Amazonian peatland. *Global Change Biology* (in press).

## 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 (drawn on a Canadian or US bank) or money order payable to CAP to:

Dr. Jessie Holst Vincent, CAP Secretary-Treasurer, c/o Prof. Francine McCarthy,  
Dept. of Earth Sciences, Brock University, St Catharines, ON, L2S 3A1, CANADA

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

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

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

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

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Research interests: \_\_\_\_\_  
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New membership      Renewal      Amount enclosed: \_\_\_\_\_

If you are the head of a palynology laboratory in Canada, may we include your name/address/research interests/webpage in the online "Directory of Canadian Palynology labs" in the CAP World Wide Web page?   Yes              No

Lab page URL: \_\_\_\_\_

Do you permit your name/address/email address to be included in the printed "World Directory of Palynologists" being compiled by IFPS?   Yes              No