

Alberta

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THE SOCIETY WAS INCORPORATED IN 1986

as a non-profit organization formed to:

1. Promote the science of palaeontology through study and education.
2. Make contributions to the science by: discovery; responsible collection; curation and display; education of the general public; preservation of palaeontological material for study and future generations.
3. Work with the professional and academic communities to aid in the preservation and understanding of Alberta's heritage.

MEMBERSHIP: Any person with a sincere interest in palaeontology is eligible to present their application for membership in the Society. Please enclose membership dues with your request for application.

Single membership \$20.00 annually

Family or Institution \$25.00 annually

SOCIETY MAILING ADDRESS:

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Requests for missing *Bulletin* issues should be directed to the Editor. Send changes of contact information to the Membership Director.

NOTICE: Readers are advised that opinions expressed in the articles are those of the authors and do not necessarily reflect the viewpoint of the Society. Except for articles marked "Copyright ©," reprinting of articles by exchange newsletters is permitted, as long as credit is given.

Upcoming APS Meetings

Meetings take place at 7:30 P.M. in **Room B108,**
Mount Royal University, 4825 Mount Royal Gate SW, Calgary, Alberta.

June, July and August, 2017—No meetings. Summer field trips. See Page 4.

Friday, September 15, 2017— Selina Robson, University of Calgary.

Using Microwear to Study the Diets of Early Mammals
and

Arnold Ingelson, Alberta Palaeontological Society.

A Visit to the Palaeontological Displays of the Smithsonian Institution. See Page 3.

Watch the APS website for updates.

ON THE COVER: Alberta fossils! Rhynchonellid brachiopods, *Hypothyridina emmonsii*, Upper Devonian, Mount Hawk Formation, from Mount Stelfox, Alberta. APS collection, donated by **Wayne Braunberger**. Catalogue number APS.1987.17. Width of upper specimen is 25.4 mm. APS file photo.

Upcoming Events

September

Selina Robson

University of Calgary

Using Microwear to Study the Diets of Early Mammals

Friday, September 15, 2017, 7:30 P.M.
Mount Royal University, Room B108

[This 15-minute presentation will precede the main speaker, **Arnold Ingelson**, who will be addressing dinosaurs and fossils located in the Smithsonian National Museum of Natural History and the new multi-million dollar national fossil hall currently under construction.]

Ingestion of abrasive foods and grit causes characteristic wear patterns on teeth. These microwear patterns can be used to distinguish between dietary groups, such as grazers and browsers, in both modern and extinct mammals. Microwear has been intensively studied in ungulates, primates, and rodents; however, few studies have examined microwear patterns in basal mammals. One such group of early mammals is the multituberculates. Multituberculates originated during the Jurassic and became extinct in the Oligocene, after having survived the end-Cretaceous extinction. These small mammals were most likely the ecological equivalents of rodents, and many scientists have hypothesized that multituberculates were omnivorous, based on their small body size and rodent-like dentitions. However, there are a few early Paleocene multituberculates that may have been large enough (approximately the size of a beaver) to be completely herbivorous. Microwear analysis provides a method to test this hypothesis. Comparisons of microwear between the large multituberculates and their smaller, closely related kin can reveal differences in their feeding strategies and further clarify the diets of early mammals.

Biography:

Selina Robson earned her B.Sc. in geology and psychology from the University of Oregon in 2016. As an undergraduate, Selina volunteered in a vertebrate palaeontology lab as a preparator, which quick-

ly led to her discovering a love for palaeontology research. She predominantly worked with extinct carnivores from Kyrgyzstan, and she described a Kyrgyz hyena fossil for her undergraduate thesis. Selina is now a Master's student at the University of Calgary, where she is studying the composition and structure of multituberculate dentine. □

Program Summary

April

Pete Truch

Alberta Palaeontological Society

Whale of a Tale—Photos from Maui

Friday, April 21, 2017, 7:30 P.M.
Mount Royal University, Room B108

[This 15-minute presentation preceded the main speaker, **Dr. Lisa Bohach**, who spoke on the Fossils, Fauna and Flora of Ellesmere Island. An abstract of her talk appeared in the March, 2017 Bulletin.]

When an unknown land animal decided to return to the sea in the early Eocene, some 55 million years ago, through an evolutionary process was born the Balaenidae or baleen whales. One of the most recognizable of these is the humpback whale, *Megaptera novaeangliae*. Almost hunted to extinction, a 1966 moratorium allowed these remarkable animals to make such a strong comeback that they have now achieved a “Least Concerned” status.

This brief talk illustrated the emergence of these creatures, illustrated with photos of living members. Bottlenose dolphins and Galapagos sharks were also presented briefly.

Biography

Pete Truch has been an APS member for a number of years. He recently shared an experience with a giant “snowbird” off the coast of Maui. Fortunately, he was able to capture a few photos of the experience, which he will be presenting.

Pete has a large number of interests, somewhat reflected by his B.Sc. in Physical Geography (1974, U of C); M.Sc. in Geography, specialization in Urban Climatology (1977, U of C); B.Sc. in Archaeology

(1998, U of C); Degree equivalent in Computer Science (1986, U of A); Certified Senior Survey Technologist (ASSTT, 1977); Certified Engineering Technologist (ASET, 1977); and, as his wife puts it best—"just plain Certified." □

2017 Field Trips Update

Field trips to the Red Deer River badlands in the vicinity of Drumheller and the central Alberta foothills are being planned for July and August. For more information, contact **Wayne Braunberger**: fieldtrips@albertapaleo.org; (403) 278-5154.

Trip 2017-2, July 15–16, 2017
Red Deer River Badlands, Alberta

This field trip will visit locations along the Red Deer River in the vicinity of Drumheller. Within the valley and adjacent coulees between East Coulee and Dry Island Park the Cretaceous Edmonton Group is well exposed. Renowned worldwide for its vertebrate fauna, stops will be made at a number of localities. Depending on timing there may be an opportunity to visit an active research location.

Registration deadline is July 7, 2017.

Trip 2017-3, August 19–20, 2017
Central Alberta Foothills, Alberta

Exposures in the Alberta foothills between Nordegg and Hinton are many and varied, allowing field trip participants the opportunity to visit a number of sites of palaeontological interest. Rocks from Devonian to Cretaceous ages outcrop at various locations, requiring only a short hike to reach.

Registration deadline is August 11, 2017. □

In Memoriam

With sadness, we report the death of longtime APS member **Dr. Arthur Sweet**, who passed away at home in the company of his family, on March 5, 2017. Dr. Sweet ("Art" to his friends) was a member of our Society since 1998. He was a scientist at the

Geological Survey of Canada for more than forty years, specializing in palynology, the study of plant microfossils and was an acknowledged authority in the field, having authored and co-authored numerous research papers.

He delivered a monthly talk in 2004 on the relationship between palynology and diamonds (*Bulletin*, March 2004). Despite his prominent standing in the scientific community, Art was as far from the aloof, ivory-tower intellectual as you could imagine: he was good-natured and approachable, always eager to chat about rocks, fossils and anything else that entered the conversation. He will be missed and fondly remembered. We offer our condolences to his family and many friends. A good obituary is available here:

<https://obitree.com/obituary/ca/alberta/calgary/choice-memorial-cremation--funeral-services/arthur-sweet/2866688/.php> □

edX Dinosaur Ecosystems Online Course



edX promotional video image.

By Daegan Kovacs

A couple of months ago, I took the free online Dinosaur Ecosystems course on edX (<https://www.edx.org/course/dinosaur-ecosystems-hkux-dinox>), offered by the University of Hong Kong. It was a great course and I learned a lot about ancient life in the Erlian Formation of northern China, near the Gobi Desert. The formation is dated to the Late Cretaceous and includes many dinosaurs such as the hadrosaur *Bactrosaurus*, the oviraptorosaur *Gigantoraptor*, and the tyrannosaur *Alectrosaurus*.

The course was broken up into six weekly units, each with a different topic and a short quiz. Week one was about the early evolution of dinosaurs with some basic knowledge about them, such as how to tell different groups of dinosaurs apart from each other. In week two, they covered theropods, specifically tyrannosaurs, oviraptorosaurs and therizinosaurs, and went over some of the differences between all these groups. Week three also focused on theropods but this time all the groups (except for ornithomimosaur) were more closely related to birds; they even talked about early birds themselves! It was amazing how close dromaeosaurs were to birds!

Week four went into herbivorous dinosaurs and the many forms they take, such as the tank-like ceratopsians, the armoured ankylosaurs, and the gigantic sauropods. I was surprised to learn that the only sauropod in Erlian, *Sonidosaurus*, was quite small—about 9 metres or 30 feet long. (Smaller titanosaurs have been found elsewhere, such as *Magyarosaurus* in Romania.) Week five discussed many of the other plants and animals that lived alongside the dinosaurs, such as turtles, crocodiles, lizards and snakes, marine reptiles, mammals, fish, plants and small crustaceans called ostracodes. Finally, week six explained the entire ecosystem, using reconstructions, bone slicing, and other techniques—bringing this ecosystem to life!

I would highly recommend this course to future palaeontologists, or to anyone with an interest in ancient life. Some of my favourite things about the course were that it was relatively fast-paced, had passionate and engaging instructors, and focused in-depth on a single ecosystem in an area of the world I didn't know much about. I particularly enjoyed the lesson on ostracodes, again because I didn't know much about them. They don't look like typical crustaceans with bodies that resemble a clam shell,

perhaps an example of convergent evolution. The creators plan on expanding the course with updated information in the future. I look forward to taking it again and learning more! □

[*Daegan Kovacs is a student and APS Member. –ed.*]

Paleo 2017 Summary

By Mona Marsofsky

More than 80 people attended Paleo 2017 on Saturday, March 18 in Jenkins Theatre at Mount Royal University. We were blessed with warm (15° C) weather and the roads were clear and dry, for a change.

To kick off the event, APS President **Cory Gross** welcomed attendees. **Dr. Wayne Haglund** briefly described the fund raising status of the terrestrial Cretaceous exhibit planned for Mount Royal University. If you would like to donate to this educational exhibit or to find out how you can help, contact Dr. Haglund, whaglund@mtroyal.ca. **Dr. Grant Zazula**, from the Yukon Palaeontology Program in the Department of Tourism and Culture of the Yukon Government, gave a fascinating talk on the long history of palaeontology research in the Yukon, which started during the Klondike Gold Rush. Dr. Zazula also described the timing of bison arrival into North America. **Peter Hews**, a professional geologist at Hara Consulting Limited, described how he discovered the ceratopsian dinosaur, nicknamed “Hell



Jenkins Theatre panorama with emcee Harold Whittaker giving Paleo 2017 introductory remarks. Photo by Don Murchison.

Boy” (*Regaliceratops peterhewsi*). **Dr. Caleb Brown**, of the Royal Tyrrell Museum of Palaeontology, numerically analyzed the variation in the ornamental structures in ornithischian dinosaurs (such as horned and duck-billed dinosaurs) and compared that to modern mammals and reptiles. **Jason Pardo**, Ph.D. student at the University of Calgary, described the large changes in the skull (e.g. development of a neck and ear) during the early tetrapod evolution of the first land dwellers. **Dr. Paul Johnston** of Mount Royal University discussed a new interpretation of the *Ogygopsis* Shale of the Middle Cambrian Burgess Shale at Mount Stephen, near Field, British Columbia. **Darren Tanke**, Senior Technician II of the Royal Tyrrell Museum of Palaeontology, shared his experiences helping to collect archaeological items from the Head Smashed-in Buffalo Jump in Alberta by utilizing the same plaster jacketing techniques used in palaeontological work.

After the one hour poster break, **Dr. Christina Barron-Ortiz** of the Royal Alberta Museum discussed her research using the shape (morphology) of mammoth teeth to determine if Columbian mammoths (*Mammuthus columbi*) lived in Alberta or if only woolly mammoths (*Mammuthus primigenius*) inhabited Alberta during the ice ages. **Dr. Alwynne Beaudoin**, of the Royal Alberta Museum, described the evidence indicating that the ice free corridor east of the Rockies did not open up early enough to be the main conduit for humans to populate North America. She suggested that humans must have moved to the south via the western coast.

Participants enjoyed eight posters, featuring a variety of topics, including:

- *An examination of troodontid tooth anatomy and the implications of functional morphology on diet* by **Mark Powers, Angelica Torices and Philip Currie**.
- *An unusual elasmosaurid (Sauropterygia: Plesiosauria) from the Upper Cretaceous (upper Campanian–lower Maastrichtian) Bearpaw Formation of Saskatchewan* by **James A. Campbell, Tamaki Sato, Tim T. Tokaryk and Jason S. Anderson**.
- *Exploring the Cenomanian and Turonian (92–96 Ma) seas of Saskatchewan, Canada* by **Emily L. Bamforth and Tim T. Tokaryk**.
- *The elusive ichthyosaurs of Saskatchewan* by **Tim T. Tokaryk and Emily L. Bamforth**.
- *Hitting the slopes: The key to trilobite taphonomy* by **Abbey Rippenhagen and Connor Fornwald**.
- *A diminutive new species of Catopsalis (Mammalia,*

Multituberculata, Taeniolabididae) from the Paleocene of southern Alberta, Canada by **Craig S. Scott, Anne Weil and Jessica M. Theodor**.

- *Jurassic-Cretaceous palynology in the Canadian Arctic* by **Anne V. Nguyen, J.M. Galloway, B. Beauchamp, A. Dutchak and T. Poulton**.
- *Life’s a drag: A Cambrian giant holds fast* by **Leela Witvoet, Anique Pelletier and Kate Targett**.

There were interesting displays provided by **Les Adler**, the **Archaeological Society of Alberta**, **Wayne Haglund** and the **Dinosaur Research Institute**. **Brandy Yanchyk** showed her new videos, *Dino Trails*, which feature local dinosaur research. If you missed seeing these excellent videos, you can watch them for free on YouTube: <http://tinyurl.com/ztzfmmj>.



Workshop attendees study mammal teeth specimens provided by Chelsey Zurowski. Photo by Vaclav Marsovsky.

On Sunday, March 19, **Chelsey Zurowski** taught two half-day sessions of her workshop, *Mammal Tooth Identification*. Chelsea shared some of the knowledge she acquired while she was earning her Master’s degree at the University of Calgary to show how to use teeth characteristics to identify different kinds of mammals. First we examined teeth from extant (current) mammals such as bear, deer and porcupine to practice using the terminology and determine diet. Then we tried to identify Eocene fossils from the Swift Current Creek area, using the provided guide. The twenty-six people who attended gained an increased understanding of the types of mammal teeth and some practice in mammal teeth identification, which should be useful for next fall’s microfossil sorting sessions.

We still have several copies of this year’s abstract

volume available for sale at the bargain price of \$7.00 each. If you would like to buy a copy, contact **Mona** at (403) 547-0182 or giftshop@albertapaleo.org.

The APS organizing committee included **Howard Allen** (editor of the abstracts volume and coordinator of the posters and displays), **Mona Marsovsky** (symposium organizing committee chair, advertising and sales table), **Harold Whittaker** (speakers and workshop), **Cory Gross**, **Wayne Braunberger** and **Vaclav Marsovsky**. I would like to thank the APS sales table volunteers: **Howard Allen**, **Lisa Bohach**, **Wayne Braunberger**, **Cory Gross**, **Georgia Hoffman**, **Michele Mallinson**, **Vaclav Marsovsky**, **Doug Shaw**, and **Pete Truch**.

We would like to thank all of those who helped to publicize this event. We would like to thank the **Calgary Public Libraries**, **Calgary Co-op** stores and **Community Health Foods** for displaying the posters advertising this event. Thanks also go to those who tweeted the message to their networks. **The Canadian Society of Petroleum Geologists** advertised our event in their publication, *The Reservoir*. An excellent article about Dr. Beaudoin's talk, written by **David Blackwell** in the **Calgary Herald** online (<http://calgaryherald.com/technology/science/qa-what-research-on-two-alberta-border-lakes-revealed-about-the-first-humans-in-north-america>) published on the Friday before the event also helped to raise awareness. We would also like to thank **Peter Watts** of **CHQR Radio** for his interview of Mona Marsovsky about Paleo 2017, which aired early on the morning of the Symposium.

Thanks go to all of the speakers, poster presenters and display staff for their contributions.

Without the support of the **Department of Earth Sciences** of **Mount Royal University** (especially **Mike Clark** and **Dr. Paul Johnston**) and **Jon Noad** and the **Canadian Society of Petroleum Geologists, Paleontological Division**, we would not have been able to hold this event without cost to the participants. Thank you all.

Take the time now to mark your calendar for next year's Symposium, scheduled for March 17 and 18, 2018. Contact **Harold Whittaker** (programs1@albertapaleo.org), if you would like to present or suggest a talk or workshop. We will have finalized our speaker program by the end of October, 2017, so be sure to submit your suggestions now. □

Bulletin back issues available online
www.albertapaleo.org/bulletinarchive.html

SVP Conference in Calgary August 23–26

By Mona Marsovsky

From August 23–26, 2017, Calgary will host more than 800 vertebrate palaeontologists from around the world for the 77th annual **Society of Vertebrate Paleontology (SVP)** meeting. The conference itself will feature four days of talks and posters presented at the Calgary Telus Convention Centre plus three field trips before the conference and four field trips held after the conference. In addition, three events open to the public will be held, namely a public lecture on Tuesday, August 22, a PaleoArt exhibition at the University of Calgary and two talks at the Field Station at Dinosaur Provincial Park.

Attendance at the SVP conference is open to anyone interested in palaeontology. To register, go to <http://vertpaleo.org/Annual-Meeting/Registration.aspx>. Registration is available for the full conference or for individual days. You can register anytime, starting immediately, including onsite during the conference.

The public lecture on Tuesday, August 22 will feature **Dr. Mary Schweitzer** of North Carolina State University and North Carolina Museum of Natural Sciences. Dr. Schweitzer's talk is entitled *Dinosaur molecules: the amazing potential of molecular paleontology*. This free lecture will be held at Ekhardt-Gramatte Hall on the University of Calgary campus, starting at 7:00 P.M. Registration is not required.

The PaleoArt exhibit will be located at the Taylor Institute for Teaching and Learning at the University of Calgary. This exhibit will feature original art from professionals and students on palaeontological themes. The exhibit will also be featured as part of the Campus Collisions series (September 13–14, 2017) at the Beakerhead Festival (www.beakerhead.com), the annual festival of art, science and engineering. Admission will be free.

Two free public lectures on *Fossils and Thought—the Philosophy of Palaeontology* will be presented at the Dinosaur Provincial Park Field Station for visitors. See the Dinosaur Park website ([APS Bulletin 7 June 2017](http://www.alber-</p></div><div data-bbox=)

taparks.ca/dinosaur.aspx) for details.

For more information on these events, contact Mona Marsovsky, monahome@telus.net, phone (403) 547-0182.

The Society of Vertebrate Paleontology annual symposium comes to Calgary only once in a lifetime. I hope you have a chance to take advantage of at least one of these events this August and September. □

Summary of APS Microfossil Sorting Sessions: Fall 2016 and Winter 2017



APS volunteers hard at work picking vertebrate microfossils for Dr. Don Brinkman's research. Photo by Mona Marsovsky.

By Mona Marsovsky

A PS members extracted fossils from disaggregated rock matrix during nine 2.5-hour-long Saturday afternoon sessions from November 5 to March 4, using microscopes provided by **Mount Royal University**.

In November and December our volunteers picked microfossils for the University of Calgary's **Dr. Jessica Theodor**, **Dr. Alexander Dutchak** and Master's student **Selina Robson**. Once again we were working with matrix from the middle Eocene (46 million-year-old) Cypress Hills Formation, south of Swift Current, Saskatchewan. In addition to fish fossils (teeth, jaws, skull bones, vertebrae, scales) and lizard jaws, we found a variety of mammal teeth, including those of rodents, insectivores, multituberculates and even an artiodactyl (even-toed hoofed



Cluster of fish teeth (black, peg-shaped) surrounding a small snail shell, from "Sheeps Ahoy" matrix. Width of view approx. 8 mm. Photo by Howard Allen.

animal). Between twelve and sixteen volunteers worked at each session.

During the January, February and March sessions we found microfossils in the matrix provided by **Dr. Donald Brinkman** of the Royal Tyrrell Museum of Palaeontology (RTMP). This year we continued work on the matrix from the “Sheeps Ahoy” locality, from the junction of the Sheep and Highwood Rivers, near Okotoks. These fossils accumulated during a flood, in a crevasse splay deposit about 30 cm deep, during the first one million years after the Cretaceous–Paleogene (K-P) extinction event, in the Paleocene Porcupine Hills Formation. Between ten and fifteen volunteers sorted through the matrix for each of the five sessions. Hidden amongst the abundant snail

shells and coal, volunteers found fish fossils (scales, vertebrae, teeth, jaws, and a *Cyclurus* jaw), crocodile teeth, salamander (*Opisthotriton*) vertebrae, lizard vertebrae, and rare mammal teeth (multituberculate and therian).

APS would like to thank Drs. Theodor, Dutchak, and Brinkman for their expertise, supplying the fossil matrix and allowing us to search for fossils in the middle of the winter.

We would especially like to thank **Mike Clark** and **Dr. Paul Johnston** for allowing us to use Mount Royal University’s lab and microscopes. Without this support from Mount Royal University, these microfossil sorting sessions would not be possible. □

26th Canadian Paleontological Conference APS Member Subsidy

By Cory Gross, APS President

This year, Calgary is being spoiled for major palaeontological conferences! On August 23–26, our city is hosting the 77th annual meeting of the Society of Vertebrate Paleontology (see Page 7). A few months later, from September 29 to October 2, Calgary hosts the 26th Canadian Paleontological Conference (CPC; see First Circular, on the next page).

Organized by the Calgary office of the **Geological Survey of Canada (GSC)**, CPC 2017 celebrates Canada 150, the 50th anniversary of the GSC Calgary office, and the 175th anniversary of the GSC itself.

Through the gracious invitation of **Dr. Robert MacNaughton** and the committee at the GSC Calgary office, the Alberta Palaeontological Society has been invited to participate as a major contributor, bridging this academic conference with the avocational community and the public at large. Our participation will be two-fold. On Sunday, October 1, we will be hosting a public lecture as part of the conference. This free lecture will feature **Dr. Jean-Bernard Caron** of the Royal Ontario Museum and **Dr. Donald Henderson** of the Royal Tyrrell Museum. This double-header of dinosaurs and the Cambrian Explosion should be fascinating!

Our second involvement is to help you attend! Funds from the APS Public Outreach budget have been allotted to subsidize sixteen APS members who would like to experience the full conference. Here’s how it will work:

- **Participants should first register with CPC 2017. Visit <https://canadianpaleoconference2017.wordpress.com>** [Online registration was not yet available at the time of this writing; keep an eye on the website]. **The early bird rate of \$120 for General and \$90 for Students applies until August 28.**
- **Once registered, send proof of payment to the APS by letter mail. The first sixteen receipts received will be awarded the subsidy.**
- **The APS will reimburse 50% of the General early bird rate—that is, \$60. The subsidy does not include the field trips or banquet, which are additional charges.**
- **Members awarded the subsidy will receive a cheque in person, either at the September APS general meeting or at the CPC 2017.**
- **Only APS members with a 2017 membership in good standing will be considered for the subsidy.**

This will be an exciting year for palaeontology and we hope to see you out at these conferences! □



The 26th Canadian Paleontological Conference

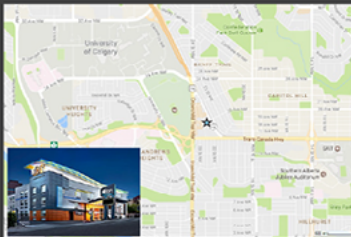
First circular

The 26th Canadian Paleontology Conference will be held in Calgary, Alberta, a city surrounded by great geology and paleontology. This year, the Calgary office of the Geological Survey of Canada (GSC-Calgary) has a double reason to celebrate—it being the GSC's 175th anniversary and GSC-Calgary's 50th anniversary. And so, together with our colleagues from the Alberta Palaeontological Society, Mount Royal University and the University of Calgary, it is our pleasure to invite you to a meeting that will both honour the past and look to the future of Canadian paleontology.

Venue

The meeting will be held at Aloft Hotel, conveniently located near the c-train line with connection to downtown Calgary, close to several hotels and motels and at walking distance from the University of Calgary.

Aloft Hotel: 2359 Banff Trail NW, Calgary, AB, T2M-4L2, Canada
www.aloftcalgaryuniversity.com



PALEONTOLOGY DIVISION
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Preliminary program

The 2-day conference (Sept 30-Oct 1) will be filled with interesting talks and posters. We are proposing two thematic sessions focussed on "Canadian Paleontology, more than 150 years of exciting research" and "New frontiers in applied paleontology". In addition to these sessions, abstracts on any topic related to paleontology are welcome.

Tentatively, on Saturday evening, the Billings Medal will be presented to this year's recipient.

The conference includes Alberta Palaeontological Society-sponsored public lectures by Donald Henderson (Royal Tyrrell Museum) and Jean-Bernard Caron (Royal Ontario Museum) on Sunday afternoon. More details will follow.

Field trips

- Stanley Glacier and fossils of the platform Cambrian Stephen Formation (Sept 29, 2017)
- McGrath Ammolite quarry (Oct 2, 2017)

The general fee per field trip is \$120 (including transportation, guidebook and lunch), student fee is \$90. See our website for more information.

Dates and fees

Registration: see our website for announcements

Field trip registration and payment deadline: August 18, 2017

Abstract submission deadline: August 18, 2017

Registration fee:	Student	General
Early bird (before August 18)	\$80	\$120
Late (until Sept. 11)	\$90	\$135

Conference Dinner: \$ 60

Registration is limited for the field trips and conference dinner!

Information and contact

Our website: canadianpaleoconference2017.wordpress.com

For questions and abstract submission: CPC2017Calgary@gmail.com

Fossils in the News

Smithsonian.com, June 8, 2017

This 99-million-year-old bird coexisted with dinosaurs

Royal Saskatchewan Museum scientist Dr. Ryan McKellar discusses fossil of a baby bird preserved in Burmese amber. www.smithsonianmag.com/smart-news/99-million-year-old-bird-coexisted-dinosaurs-180963615/ Open-access paper: www.science-direct.com/science/article/pii/S1342937X17300527

CBC News online, May 14, 2017

World's best-preserved armoured dinosaur revealed in all its bumpy glory

The "Suncor nodosaur," found in an oilsand mine near Fort McMurray in 2011, has been prepared and is on display at the Royal Tyrrell Museum. www.cbc.ca/news/canada/calgary/nodosaur-national-geographic-dinosaur-suncor-1.4113462.

Inside the Royal Tyrrell Museum, June 13, 2017

Dr. Donald Henderson finds first evidence of iguanodontids in Alberta

The Canyon Creek dino footprint turns out to be extra-special. <https://royaltyrrellmuseum.wordpress.com/2017/06/13/first-evidence-of-iguanodontids-in-alberta/>

[Thanks to Philip Benham, Georgia Hoffman and Erika Suciú-Krausz for sending links. -ed.] □

2017 Fort Whoop Up Knap-in

Flint knapping lessons, demonstrations, tools, pot-luck dinner, auction, on-site camping.

Friday, Sept 1 – Monday, Sept 4, 2017
 Fort Whoop-Up Black Powder Range
 near Lethbridge, AB

For information and registration contact
Barry Rogers, 403-678-5041
rockybearroad@gmail.com

FOUR FOSSILS

By Howard Allen, APS Collection Curator

This installment is a space-filler, so strictly bare-bones—so to speak! Four more random specimens from the APS collection.



APS.1989.16 (scale bar = 1 cm)

These rod-shaped objects are echinoid (sea-urchin) spines from the Miocene of the Batesford limestone quarry, near Geelong, Victoria, Australia (see sponge specimens 1999.22 featured in the March 2017 *Bulletin*). Donated by **Leslie Adler**.



APS.1989.07 (scale bar = 1 cm)

A small, battered but typical specimen of the Late Cretaceous ammonite *Scaphites* sp., Wapiabi Formation, from the Seebe, AB shale pit. Donated by **Bob Markhasin**, an early APS member.



APS.2006.02 (scale bar = 1 cm)

Collected and donated by the late **Hope Johnson** (see specimen 2006.29 in the March 2017 *Bulletin*), from the Upper Cretaceous Dinosaur Park Formation at Red Rock Coulee, southwest of Medicine Hat, Alberta. This is a weathered unguis phalanx (“claw bone”) of an ornithomimid dinosaur, one of the small theropods. It is one of a large number (76 catalogued in total) of small vertebrate specimens in the 2006.nn series that were donated from her collection.

APS.1986.53 (scale bar = 1 cm)

Five small brachiopods donated by former member and once-President **Percy Strong**. These look nearly identical to productid brachiopods that are common in the Lower Carboniferous formations of western Alberta. However, they are from much further afield. They're identified as *Productus diaphragmus elegans*, from “Hazard Co.,” Kentucky, USA.

A little online research soon reveals that there is no “Hazard County” in Kentucky; but there is a *town* of Hazard, in *Perry County*. More searching points to the Magoffin Member of the Breathitt Formation as a likely source, as this Pennsylvanian (Upper Carboniferous) unit is exposed in road cuts and coal mine spoil piles near Hazard. □



APS Balance Sheet for 2016 For January 1, 2016 to December 31, 2016

Revenues

Memberships	2020.00
US\$ Exchange	7.00
T-shirts	160.00
Field Trip Guides	8.00
Old Abstract Volumes	15.00
APS Book	1385.00
Shipping and Handling	57.00
Misc. Sales	0.00
Refreshments	19.65
Field Trip Fees	450.00
Workshop Fees	320.00
Donations	30.00
Symposium Abstract Sales	246.00
Symposium Donations	1087.85
Bank account interest	159.78
Public Outreach income	0.00
Library income	22.00
Les Adler for MRU Exhibit	10.00

Expenses

Bulletin Printing	96.01
Bulletin Postage	94.34
Speaker Expenses	0.00
PO Box Rental	170.10
Membership Printing	21.80
Membership Postage	97.79
Field Trip Expenses	60.00
Workshop Expenses	32.79
Symposium Speaker	2233.37
Symposium Abstract Printing	185.79
Postage for Sales	45.27
Refreshments	174.26
Bank Charges	137.29
Miscellaneous	0.00
APS Book printing	1310.14
Public Outreach	12.60
T-shirt Purchase	698.25
New GIC purchase	1059.15
MRU Exhibit donation	1010.00

Subtotal Revenues 5997.28

Subtotal Expenses 7438.95

Plus Revenue Received in 2015 for 2016

Plus Expenses paid in 2013 for 2016

2016 Membership Fees	310.00
2016 Workshop Fees	10.00
Savings for 2016 Symposium	3551.00
Savings for Library	497.25
Savings for Public Outreach	600.66
Savings for Refreshments	136.82
Savings for T-shirt purchase	1271.30
Savings for MRU Exhibit	1000.00
Savings for GIC purchase	900.00

Website domain and hosting fee 108.03

Plus Expenses paid in 2015 for 2016

2016 PO Box rental 163.80

Minus Expenses paid 2016 for 2017

2017 PO Box rental 170.10

Subtract Revenue Received in 2016 for 2017

2017 Memberships Fees	255.00
Savings for 2017 Symposium	2662.00
Savings for 2017 Library	519.25
Savings for 2017 Public Outreach	600.66
Savings for future T-shirts	573.05

Total Revenues 9664.35

Total Expenses 7540.68

Excess of Revenues over Expenses = \$2123.67

Total Fund Raising Proceeds \$1,855.23

GICs due Jan 20 2017 16,216.65

Inventory Cost \$1,579.64

December 31, 2016 Account 10,723.50

Values Current to Date: 1-Jan-17

Audited by APS Members (Bylaws):

Printed Name: Pete Truch

Signature: Pete Truch

Date: Jan 25/17

Printed Name: Todd Ashton

Signature: Todd Ashton

Date: Mar 18/2017

Agreed to Support TGS March 18/2017