Palæontological Society
Alberta Bulletin

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ALBERTA PALAEONTOLOGICAL SOCIETY

THE SOCIETY WAS INCORPORATED IN 1986 as a non-profit organization formed to:

a. Promote the science of palaeontology through study and education.
b. Make contributions to the science by: 1) Discovery. 2) Collection. 3) Description. 4) Education of the general public. 5) Preservation of material for study and the future.
c. Provide information and expertise to other collectors.
d. Work with professionals at museums and universities to add to the palaeontological collections of the province (preserve 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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THE BULLETIN WILL BE PUBLISHED QUARTERLY: March, June, December and December. Deadline for submissions is the 15th of the month prior to publication. Material for the *Bulletin* should be sent to:

Howard Allen, Editor, APS
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Calgary, AB, Canada T2K 4M2
editor2@albertapaleo.org

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

Upcoming APS Meetings

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

Friday, December 12, 2014 (Second Friday)—*Christmas Social.*

Friday, January 16, 2015—Ramon Nagesan, University of Calgary.
An Overview of the Marine Reptile Group Plesiosauria and an Introduction to Deducing the Flexibility of their Necks.

Friday, February 20, 2015—Matt Szostakiwskyj, University of Calgary.
***The littlest* Brontosaurus*: Two new recumbirostrans (Lepospondyli) and a redescription of* Rhynchonkos stovalli*, based on* HRXCT**

Watch the APS website for updates on upcoming programs.

ON THE COVER: Alberta fossils. Solitary rugose coral, Rundle Group, probably Mount Head Formation (Carboniferous), Rocky Mountain Front Ranges. Specimen donated by Geoff Barrett. Length of fossil is 46 mm. APS fossil collection, APS.1984.25. APS file photo.

President's Message

By Cory Gross

A chill wind has blown across Alberta once more and buried our favourite collecting sites under a thick blanket of snow. It's now the time to unpack those bags and tissue-wrapped jumbles of rock to dust off, piece together and label all those wonderful fossil finds from the summer!

The APS has already hosted several excellent lectures for our monthly meetings at Mount Royal University. **Jason Pardo**, **Gregory Funston** and **Dr. Duane Froese** have educated us on everything from Carboniferous tetrapods to Ice Age bison.

In addition to hearing some of the latest research from academics across Western Canada, we've also been hearing fantastic short presentations by our regular APS members. These 10-minute talks are a chance to share some of the places you've been and adventures you've had, or some of your own research on areas that have been of interest to you. **Pete Truch** presented our most recent one, about a trip through Wyoming involving dinosaurs and jackalopes; and **Howard Allen** took us virtual ammonite-hunting.

If you're looking for opportunities to get nose-deep in some fossil material, our Saturday microfossil sorting continues (see Page 6). Volunteers are always welcome for camaraderie and real contributions to the science of palaeontology. Speaking of which, our annual Symposium is quickly coming upon us. Our slate of speakers has been lined up and posters will soon be coming in. The Symposium is another excellent opportunity to volunteer with the APS.

Don't forget to make your voice heard on our hunt for a new logo (or to keep the original one)! A voting form has been included with this issue of the *Bulletin* and the deadline is January 9. Our logo choice will be unveiled at the January 16 General Meeting and will carry us forward in our print and online media, T-shirts and paraphernalia for years to come!

Thank you to everyone for contributing to the APS and making it the stellar organization it is! We are going to have another great year. Stay safe and warm this winter, and have a Merry Holiday Season and Happy New Year! ❑

Upcoming Events

January

Ramon Nagesan

M. Sc. Candidate, University of Calgary

An Overview of the Marine Reptile Group Plesiosauria and an Introduction to Deducing the Flexibility of their Necks

Friday, January 16, 2015, 7:30 P.M.
Mount Royal University, Room B108

Plesiosauria are a monophyletic group of Mesozoic marine reptiles that have been found on every continent, and are known from many fossil localities here in Alberta. The group first appeared toward the end of the Triassic Period and persisted until the end of the Cretaceous Period.

Within Plesiosauria (=plesiosaurs) there are several taxonomic divisions, the most major of which is the split between the two primary morphotypes: Plesiosauridae and Pliosauridae. The Plesiosauridae traditionally include the taxa that exhibit a long neck and small skull, while Pliosauridae possess generally shorter necks and larger skulls. The range of body plans within Plesiosauria (Plesiosauridae + Pliosauridae) could indicate that this group was both evolutionarily complex, and ecologically diverse.

One of the most striking features of these animals is their elongate neck, which would have played a role in aspects of their lifestyle such as feeding and swimming abilities. Since plesiosaurs were obligate marine reptiles they would have had to deal with a range of forces different from that of terrestrial animals, and how the neck functioned in these conditions is an under-studied topic. To better understand the function of the elongate neck and its effect on the lifestyle of plesiosaurs, it is useful to understand morphology and make functional interpretations.

An introduction to a functional morphology study of *Nichollssaura borealis* (TMP 1994.122.01) is presented here. *N. borealis* was collected in 1994 from rocks dating to approximately 113 million years ago in the Clearwater Formation near Fort McMurray, Alberta. The aim of this study is to quantify and understand

the flexibility in the neck of this plesiosaur specimen, and develop methods that can be applied to other plesiosaurs. Using *N. borealis*, 3-D renderings have been constructed from CT data of the cervical vertebral column; this will be used to build a functional biomechanical model. Using this model a greater understanding of plesiosaur lifestyle and ecology may be inferred, to better understand this diverse and interesting group of animals.

Biography

Ramon Nagesan is a M.Sc. student at the University of Calgary, currently finishing the first year of his Master's degree under the supervision of **Dr. Jason S. Anderson**.

Ramon was born in Sri Lanka and moved to Toronto, where he grew up visiting the Royal Ontario Museum as much as possible. Ramon has always been fascinated by the world around him: as a small child he collected lizards and rocks to figure out whatever he could. Attending the University of Toronto for his H.B.Sc., he concentrated on biology, geology and palaeontology, working with **Dr. Robert Reisz** on tooth wear in the Permian reptile *Captorhinus augti*. Ramon has conducted fieldwork in many locations, including northern Ontario, the southwestern United States and all across Alberta.

Following the completion of his undergraduate degree he immediately began work as a Field and Lab Technician at the Royal Tyrrell Museum. While at the RTMP he worked on a plesiosaur specimen from Fort McMurray, the Olds College champsosaur (which is now on display) and a variety of dinosaur material from Alberta. Notable field projects here in Alberta have included: The Milk River *Daspletosaurus* ("Mr. Daspleto"), three summers in Dinosaur Provincial Park, the Olds College champsosaur, the Okotoks gar block, the Red Deer River *Arrhinoceratops* bone bed, and the Scabby Butte bone bed. Ramon wishes to have a fulfilling career involved with palaeontology into the future.

February

Matt Szostakiwskyj

M.Sc. Candidate, University of Calgary

The littlest Brontosaurus*: Two new recumbirostrans (Lepospondyli) and a redescription of* Rhynchonkos stovalli*, based on* HRXCT

Friday, February 20, 2015, 7:30 P.M.
Mount Royal University, Room B108

Rhynchonkos stovalli (Lepospondyli: Recumbirostra) is a small "microsaur" from the Permian of Oklahoma that, based on a number of shared features, has been hypothesized to be one of the potential ancestors of caecilians. However, due to the varying nature of preservation of the available materials, the original description of *Rhynchonkos* was done as a composite of multiple specimens.

We used micro-CT to digitally dissect and reconstruct the specimens attributed to *Rhynchonkos*. We will present new braincase data that varies between specimens, and has led to the description of two new taxa (*Aletrimyti gaskilli* and *Dvellecanus carrolli*), as well as a redescription of the holotype specimen. With the splitting of these taxa, the host of shared features between *Rhynchonkos* and caecilians is greatly diminished. Furthermore, the interlocking nature of the elements of the skull roof, braincase, and palate imply a fossorial lifestyle for recumbirostrans, suggesting that any similarities with caecilians may be due to burrowing. Variation of the endocranial features both within and between these specimens, and others previously analyzed, has prompted a large-scale review of recumbirostran endocranial morphology. These new detailed descriptions have led us to re-evaluate the current understanding of "microsaur" phylogeny.

Biography

From Calgary, Alberta, Matt Szostakiwskyj completed his B.Sc. in zoology at the University of Calgary in 2013. He spent the following year as a research assistant in the Anderson lab, using micro-CT to digitally reconstruct microsaur skulls. Through this process, he was able to show that *Rhynchonkos stovalli*, a microsaur hypothesized to be a potential ancestor of caecilians, was a composite of three dif-

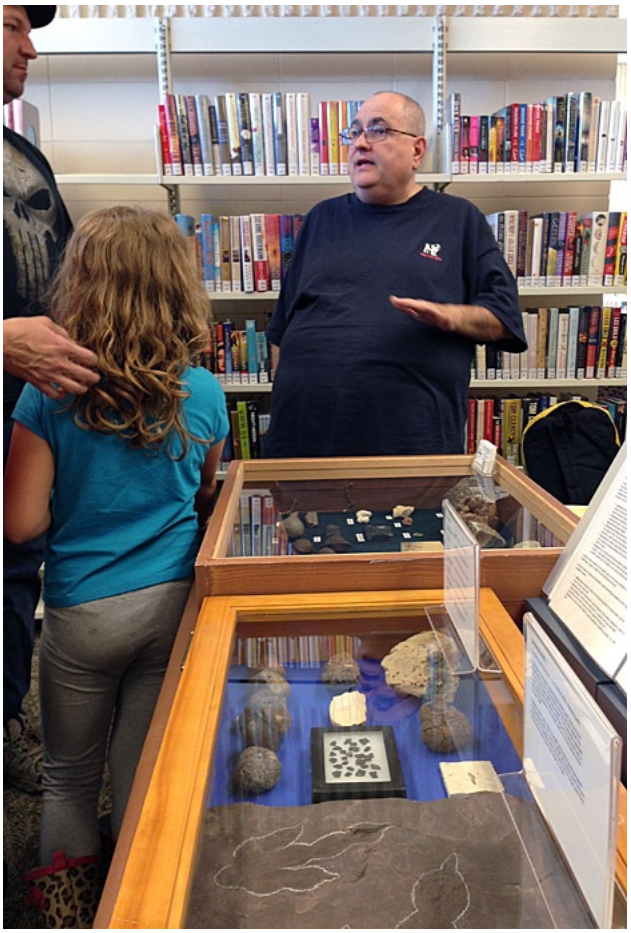
ferent animals. Matt is currently a Master's student with **Jason Anderson** at the University of Calgary, studying the evolution and diversification of salamanders. He is interested in the origin of lissamphibians, and how the extant frogs, salamanders, and caecilians relate to the multitude of extinct amphibians. His current research aims to document the variation in cranial anatomy of salamanders, and to explore its implications in their phylogeny. His other research projects include the redescriptions of various microsaurs, the phylogeny of lepospondyls, and exploring new visualization techniques for comparative anatomy. In his spare time Matt enjoys riding bicycles and snowboards and brews his own beer. ❑

Rock 'n' Fossil Road Show Draws a Crowd

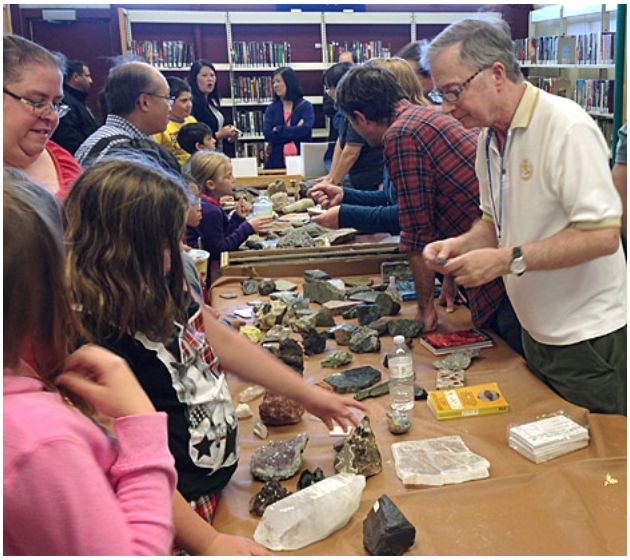
By Howard Allen

The Fall 2014 Rock 'n' Fossil Road Show, led by the Geological Survey of Canada, went ahead October 18 at the Calgary Public Library's Thorn-Hill branch on Centre Street North.

Dan Quinsey once again represented the APS with display cases of trace fossils and pseudofossils from his personal collection. Your editor visited the event around 1:00 and found the place packed with visitors. Dan was pretty much constantly busy while I was there, which attests to the popularity of the event. Some awesome specimens of fossils, rocks and minerals were on display, making it a very worthwhile visit, and the library was uncharacteristically abuzz with chatter. Thanks to Dan for volunteering, and to the GSC and Library folks for hosting this great public education opportunity. ❑



APS Rep Dan Quinsey explains a palaeontological topic. Dan constructed and filled his own display cases.



Standing room only as the public learns about rocks, minerals and fossils at the Geological Survey tables.

Recent Donation by APS Member

A big thanks to **Dr. Robert MacNaughton** of the Geological Survey of Canada who recently donated two important hardcover books on trace fossils, including a volume of the *Treatise on Invertebrate Paleontology*. These have been added to the APS library and will be available for loan once they've been catalogued. Thanks also to **Harvey Negrich** who communicated with Dr. MacNaughton regarding the donation. ❑

Dates set for 2015 Microfossil Sorting

By Beverley Ulmer

Dates have been scheduled for our January and February 2015 microfossil sorting sessions. We will be sorting matrix provided by **Dr. Don Brinkman** of the Royal Tyrrell Museum.

Sessions will be held in Room B213 of Mount Royal University from 1:00 to 3:30 p.m. on the following **Saturdays**.

January 17
January 31
February 14
February 28

The matrix to be sorted is from Blackspring Ridge, near Lethbridge, Alberta, site of a turbine wind generator installation that exposed fossiliferous bedrock of the Upper Cretaceous St. Mary River Formation (Bohach and Frampton, 2014). The St. Mary River Formation is a southwestern equivalent to the Horseshoe Canyon Formation.

All finds will be kept by Dr. Brinkman to advance his research. Those attending should bring tweezers suitable for picking up micro-sized objects under a microscope and a pen to write down their findings. Microscopes are supplied by Mount Royal University. Sessions are family events open to the public and children may attend, with adult supervision.

Sessions are held on a drop-in basis and no signup is necessary, but if you email your intention to attend, we can let you know if a session needs to be cancelled for any reason (such as a winter storm).

Email **baulmer2010@gmail.com**. Online maps of the University campus and visitor parking lots are available at **www.mtroyal.ca/AboutMountRoyal/CampusesTours/CampusLocations/interior_map_level2.htm** and **www.mtroyal.ca/AboutMountRoyal/TransportationParking/ParkingMaps/index.htm**.

Thank you for your interest—we look forward to seeing you there!

Reference

Bohach, L.L. and Frampton, E.K. 2014. What lies beneath: The dinosaurs of Blackspring Ridge. Alberta Palaeontological Society, Eighteenth Annual Symposium, Abstracts and Short Papers. Mount Royal University, Calgary, pp. 23–25. ❑

2015 Field Trips

By Wayne Braunberger

Planning is well underway for the 2015 field trips. In order for potential attendees to plan their summer activities, details of the first two trips are provided below.

Trip 2015-1, May 9 – 10, 2015
Edmonton Alberta

Preliminary plans are to visit the Danek bonebed and the University of Alberta palaeontology labs and museum on Saturday and tour the Royal Alberta Museum labs and collections on Sunday. Our hosts would be **Dr. Phil Currie** (U of A) and **Dr. Chris Jass** (RAM).

Trip 2015-2, June 20 – 21, 2015
Eastend Saskachewan

The area around Eastend has localities ranging in age from the early Maastrichtian to the Pleistocene, is close to the site where Canada's most complete *T. rex* ("Scotty") was found, has one of the finest (and fossiliferous!) exposures of the K–Pg Boundary in the country, and has been a haven for Cenozoic mammal palaeontologists for decades. The valley around Eastend (called "Valley of the Hidden Secrets") also has a rich archaeological record. There would be accommodation available at the Riverside Motel and Cypress Hotel, as well as in the town campsite. The *T. rex* Centre and golf course will also be open.

A guide book for the trip will be provided and possibly a lecture in the *T. rex* Centre auditorium on Saturday evening. **Dr. Emily Bamforth** and **Tim Tokaryk** of the Royal Saskatchewan Museum will be our hosts for the weekend.

Trips for July and August are still being planned. Further information will be available on the APS Website and in the March *Bulletin*.

If you have suggestions for a field trip location, or would be interested in arranging or leading a trip, contact **Wayne Braunberger**, **(403) 278-5154** or **fieldtrips@albertapaleo.org.**

Discovering Dinosaurs Exhibit debuts in Edmonton

Review and photo by Mona Marsovsky

The *Discovering Dinosaurs* special exhibition at the University of Alberta's Enterprise Square Galleries is showing until January 31, 2015 (but closed December 21 through January 7). The Gallery is in downtown Edmonton at 10230 Jasper Avenue, near the Bay LRT station. Opening hours are restricted to Thursdays and Fridays from 12:00 to 6:00 P.M. and Saturdays from 12:00 to 4:00 P.M. Admission is by donation: $10 is suggested.

I spent about one hour at the gallery, which was enough time to view all of the exhibits and read all of the explanations in the seven rooms occupied by the exhibition. The exhibit focuses on research done by University of Alberta professors and students into dinosaurs, marine reptiles and mammals from the age of dinosaurs in Alberta.

Explanations of what each researcher studied and concluded accompanies the original fossils, many of which have not been displayed anywhere previously. A few fossil casts from China and Mongolia illustrate how the Alberta dinosaurs relate to those from Asia. On the walls of the rooms, life-sized paintings of the dinosaurs helped me appreciate the true size of these animals.

If you are in Edmonton while the exhibition is running and can arrange to arrive during the rather limited opening hours, I would recommend seeing this exhibition.

An "insider's" take on the displays can be seen on **Victoria Arbour**'s blog: **pseudoplocephalus.blogspot.ca/2014/09/discovering-dinosaurs-revealing-teamwork.html.**

The official webpage for the exhibition is at **museums.ualberta.ca/EnterpriseSquareGalleries.aspx** (click "Current Exhibitions"). ❑

Four Fossils

By Howard Allen, APS Collection Curator

This article, which may become a semi-regular feature, illustrates and briefly discusses four randomly chosen specimens from the APS fossil collection. To ensure that the choices are truly random and don't reflect my own biases, I whipped up a simple random number generator in an Excel spreadsheet and used it to pick the first four valid accession numbers that appeared. All specimens in the collection have already been photographed, so the illustration part will be easy. Since every fossil is potentially interesting, the only challenge in that area will lie with the skill of the writer!

The scale bar is 1 cm long in all photos.

APS.1988.01

Our first specimen is a pair of small horn corals from Lake Brownwood, Brown County, Texas. Four much larger and differently shaped specimens, numbered APS.1988.02 and from the same locality, were identified as the same species, but that seems questionable. All were donated by one of our former members, **Jean Wallace**, who we last heard was living in Temple, TX. Jean and her late husband **Emmette** were great friends of founding members **Harvey and Steffie Negrich**. The Wallaces made several trips to Alberta for visits and rock shows.

The horn corals were identified by the donor as *Caninia torquia* (Owen), from the Carboniferous (Pennsylvanian) age Colony Creek Shale.

Lake Brownwood is about 90 km southeast of Abilene, and must be close to the geographical centre of the state. According to an excellent, zoomable geologic map (**www.twdb.state.tx.us/groundwater/aquifer/GAT/brownwood.htm**), the Colony Creek Shale outcrops in a narrow, north-south strip right through the middle of Lake Brownwood, a sprawling, multi-armed reservoir that Google Earth shows to be lined with cottages and boat houses. An old USGS paper on the geology of the area (Eargle, 1960) states that "The [Colony Creek Member] is a gray shale. . . In the Lake Brownwood area the shale contains abundant fossils—chiefly crinoids, bryozoans, gastropods, and brachiopods—near the base". Significantly, corals are not mentioned, though they would not be unexpected among the other fossil types named. A glance at the rest of the paper indicates that horn corals do occur in other Pennsylvanian formations of the area.

Our specimens have the typical horn shape of solitary corals. Magnification reveals a sparse epifauna of encrusting bryozoans and a tabulate coral reminiscent of *Aulopora*. The smaller specimen has a small adhering fossil that appears to be a fusulinid foraminifer and the larger has a tiny horn coral attached to it (arrow) that appears to be simply cemented to the surface and not a budding juvenile.

APS.1992.14

The Dinosaur Park Formation of Alberta is of course the source of many of the vertebrate fossils in our collection, including this one. Donated by founding member **Don Sabo**, one of the collection's most generous benefactors, it was eroded from rocks identified as "Judith River Formation" (now Belly River Group, which includes the Dinosaur Park Formation) near Dinosaur Provincial Park.

It is identified in the catalogue as a finger bone (manual phalanx) of a small theropod dinosaur. This is the sort of fossil that the APS book (2009) was made for. Referring to **Hope Johnson**'s pen-and-ink drawings, this specimen rather resembles, to my in-

expert eye, some of the pedal—hind foot—phalanges attributed to *Troodon* (or perhaps *Dromaeosaurus*; apparently a number of small theropods left their remains in the Dinosaur Park Formation, so you can take your pick). If that is really the case, it's likely that the photo here shows the specimen upside down, with the distal end (ball-joint, toward the finger- or toe-tip) to the right, and the proximal end (socket) to the left.

APS.2008.50

Leaf fossils form a significant part of the APS collection, western Canada having vast areas of continental rock exposure that preserves the remains of once-verdant landscapes. This particular specimen is nowhere near the most spectacular one, but represents one type of leaf from a locality that produced a diversity of forms.

The bad news is that we don't know where it came from. These leaf fossils were part of a collection of material that was donated in 1997. The identity of the donor was not recorded. Therefore we have no real knowledge of the locality, the formation or the age of these specimens and we can only speculate. The matrix is a pale, buff-coloured, slightly friable, silty, very fine grained sandstone. It is unlike the matrix at some other well-known localities (Genesee: grey shale; Burbank: greenish grey shale; McAbee: white, tan or brown shale) so these can be safely eliminated. Buff coloured sandstone is a typical lithology of the leaf-bearing Paskapoo Formation (Paleocene), but also of any number of Cretaceous formations in Alberta, all of which outcrop over a vast chunk of geography—and we have no evidence that they even came from Alberta. The only other clue—a flimsy one—is that someone apparently coated the surface of the fossil with Krylon or some other varnish.

This mystery highlights the big responsibility that collectors have to record the localities of their finds. We've all heard the lecture a hundred times before, but it still bears repeating. If you recognize this fossil, please contact me and we can try to fill in some of the blanks.

APS.1984.12

A surprising fact is revealed by this specimen's accession number: the APS fossil collection began two years before the APS was founded (in 1986)!

Another founding member, **Geoff Barrett**, donated the specimen, collected at Glenmore Reservoir in Calgary. Geologically-minded visitors have noticed the outcrops of Paleocene-aged Paskapoo or Porcupine Hills Formation around the reservoir, especially near the Glenmore Trail causeway and the dam.

The specimen is a small freshwater snail, or gastropod, embedded in a coquinoid (shelly) lime mudstone with lots of entrained chert granules. Identified as *Campeloma* sp., it also strongly resembles *Lioplacodes* sp. Both genera are documented from the formation (Tozer, 1956).

This sort of rock in the Paskapoo and Porcupine Hills formations is worth examining closely, as it represents a concentrated lag deposit that sometimes contains mammal teeth—but not in this case. ❑

Alberta Palaeontological Society. 2009. Guide to common vertebrate fossils from the Cretaceous of Alberta. Pp. 113–120.

Eargle, D.H. 1960. Pennsylvanian and Lower Permian rocks of parts of west and central Texas. United States Geological Survey, Professional Paper 315-D, pp. 55-77.

Tozer, E.T. 1956. Uppermost Cretaceous and Paleocene non-marine molluscan faunas of western Alberta. Geological Survey of Canada Memoir 280.

Paleo 2015

Alberta Palæontological Society's 19th Annual Symposium

The Symposium

Paleo 2015 is a two day event with talks, posters and displays on Saturday, March 21 and a workshop on Sunday, March 22. Saturday programs are free and open to the public. Sunday workshop participants must register and pay a fee for manuals and materials. Main events will be centred in the lower level corridor at Mount Royal University. Lectures will be held in the Jenkins Theatre.

Call for posters and abstracts

You are invited to present a poster at Paleo 2015. The symposium will feature presentations from avocational, student and professional palaeontologists from all over western Canada. We welcome posters or displays associated with palaeontology. Invitations have been sent to staff and students of universities, natural history clubs, the Geological Survey of Canada, museums, the resource industry and the artists' community. Our aim is to showcase palaeontology to the public and foster closer relations between the APS and the above groups. There is no fee to submit a poster and abstract.

A table and stand with a 4 x 8-foot poster board will be supplied to each presenter. You should bring push pins or tape for attaching posters, but we will try to have some on hand for those who forget. Special requirements such as electricity to operate a display or a larger display area should be identified when you request a space. Presenters are requested to provide an abstract (see below). We request that poster presenters be set up by 9:00 A.M. Saturday, March 21. During the day a poster session period will be specified; please be available at least during this time for discussion of your exhibit. The deadline for submitting requests for poster space is February 15, 2015.

Paleo 2015 abstracts volume

A symposium abstracts volume will be published and sold at a price to cover costs. We request all speakers and poster presenters to submit abstracts or short papers for publication. **Submissions may be any length**: less than a full page is fine, multi-page abstracts or short papers will be accepted. **Contributors are encouraged to include photos and/or diagrams**, but note that colour images will be converted to black and white. Documents are not edited for content but will be formatted for publication. The author's mailing and email addresses should be included. **Submission deadline is February 15, 2015**. Download guidelines for authors (PDF) from our website, **www.albertapaleo.org** or contact the Editor (see contact information, next page).

Sunday Workshop

A workshop will be offered at Mount Royal University, Room B213. Registration is limited to 20 participants, so register early! To register, contact **Harold Whittaker** (see next page). **Registration deadline is March 10, 2015**. Make cheques payable to Alberta Palaeontological Society. Payment may be handed to Harold or mailed to the Society's mailing address at P.O. Box 35111 Sarcee Postal Outlet, Calgary, AB T3E 7C7.

Exploring Canadian Cretaceous Amber and the Amber Research Process with Dr. Ryan McKellar of the Royal Saskatchewan Museum. Sunday, March 22, 2015. A morning session from 9:00 A.M. to 12:00 P.M. and an afternoon session from 1:00 P.M. to 4:00 P.M. will be offered. Cost: $20.00 per person.

This workshop will introduce participants to the range of inclusions found within Canadian Late Cretaceous amber, and provide hands-on experience in the search for inclusions, preparation of amber specimens for research, and many of the steps involved in studying amber inclusions. Participants will help screen an unexplored set of Cretaceous amber pieces for inclusions, as well as specimens that have already been prepared as epoxy-embedded research mounts, using a stereomicroscope. Participants will also get a chance to prepare their own research-grade microscope slide mounts, and try out some of the latest technology utilized in modern scientific illustration. In short, you will have a chance to experience many of the steps involved in the amber research process, with the potential to make your own palaeontological discoveries.

- Participants are asked to bring their own "tweezers" or forceps for handling amber pieces.

Contact Information

Paleo 2014 Committee Chairperson: Mona Marsovsky, (403) 547-0182, **giftshop@albertapaleo.org**
Posters & displays: Howard Allen (403) 862-3330, **editor2@albertapaleo.org**
Presentations & Workshops: Harold Whittaker (403) 286-0349, **programs1@albertapaleo.org**
Abstract submissions: Howard Allen (403) 862-3330, **editor2@albertapaleo.org**
Advertising: Cory Gross (403) 617-2079, **president1@albertapaleo.org**

Visit the APS website for confirmation of lecture and workshop times and speakers: **www.albertapaleo.org**

Helpful Hints for Poster Presenters

What is a poster?

A poster is a visual medium to express results or an overview of one's research work on a topic they have chosen to study. It is something that you pin up on a board. The dimensions of a poster can vary. It can be anywhere from 2′ x 3′ to 4′ x 8′. It contains text and images relevant to your work.

Who should do a poster?

Anyone who has an interest in sharing their work and who likes feedback from the audience (symposium attendees) should consider doing a poster.

What should be considered for a poster?

Any topic that ties in with palaeontology can be considered for a poster.

Why posters?

Written and illustrated presentations convey developments in a field of study that interests the investigator. Posters are an effective form of presentation.

A typical poster format:

- Title, Author(s), Affiliation
- Summary—sum up the study in one paragraph
- Introduction—reasons behind the work
- General information, location (study area)
- Description and interpretation
- Conclusions
- References

Dedicate a box to each one of the sections listed above. Within the box, include the text and figures relevant to that section. Number the boxes in such a way that the reader can follow from one box to the next in your intended sequence. The structure of the framework will vary from topic to topic.

How does one make a poster?

Today, with powerful graphics and word processing software, a poster can be made entirely using a computer. The final poster image can be printed on a large-format colour printer. But you don't need a computer to do a poster! Carefully hand-lettered or typewritten text can be combined with drawings, photos or enlarged photocopies to make an effective presentation. These days it should be easy to find someone with a computer who could print out some titles or captions to add to your text.

What about the visual presentation?

Whatever the size of the poster, when one views it from one or two metres away, the type (or font) size must be large enough that the text can be easily read. Also, figures should be reasonably large. Think about when the eye doctor wants you to read off her chart of alphabets and numbers from a distance. Don't be tempted to crowd too much information onto a poster—you can overwhelm your audience. Adding colours makes a difference to the poster, and can lure viewers to your poster or even drive them away!

What's an abstract?

An abstract is just a summary of your work, from introduction to conclusion, boiled down to one or a few paragraphs. We'd like to have an abstract from each of our poster presenters and speakers, to include in the Symposium Abstracts Volume. Illustrations are encouraged (they will be converted to black-and-white).

Good luck, and have fun!

APS Paleo 2015

Mount Royal University

4825 Mount Royal Gate SW, Calgary, Alberta

Presented in conjunction with the CSPG Palaeontological Division
and Mount Royal University Earth Sciences Department

Lectures and poster displays—Saturday, March 21, 2015, 9:00 AM to 5:00 PM
Workshop—Sunday, March 22, 2015, 9:00 AM to 4:00 PM

Saturday events are free to the public

There will be fossil displays and activities of interest to a wide audience including families.
The Sunday workshop requires pre-registration and a fee.

Saturday, March 21 speaker schedule

All talks will be held in Jenkins Theatre, lower level of Mount Royal University

9:00 AM	*Opening statement by* **APS President Cory Gross** *and symposium instructions by* **APS Programs Director Harold Whittaker.**
9:15 AM	*Alberta amateur palaeontologist Hope Johnson: "Now there was a lady!"* **Darren Tanke, Royal Tyrrell Museum of Palaeontology.**
10:15 AM	Coffee Break.
10:30 AM	*Burrowing in early tetrapods: Morphology, ichnology and diversity.* **Jason Pardo, University of Calgary.**
11:00 AM	*Gondwanan amber: The range of inclusions and pseudoinclusions preserved in Late Cretaceous amber from the Antarctic Circle.* **Annie Quinney, Monash University, Australia.**
11:30 AM	*A new paradigm for the origin of avian flight and "bizarre" dinosaur structures.* **Garnet Fraser, M.D., Prince George, British Columbia.**
12:00 PM	Lunch Break and Poster Displays.
1:00 PM	*The Philip J. Currie Dinosaur Museum, a new museum of palaeontology in northern Alberta.* **Robin Sissons, Philip J. Currie Dinosaur Museum.**
1:30 PM	*Exploring the Devonian of eastern Canada for a fish that bites.* **Tetsuto Miyashita, University of Alberta.**
2:00 PM	Poster session, coffee break. Poster presenters are requested to be with their posters.
3:00 PM	*A new specimen of ornithomimid (Theropoda) from Dinosaur Provincial Park provides unprecedented details in dinosaur plumage and feather evolution.* **Aaron van der Reest, University of Alberta.**
3:30 PM	*Palynomorphs from a footprint site in the Nemegt Formation (Maastrichtian) at Bugiin Tsav, Mongolia.* **Eva Koppelhus, University of Alberta.**
4:00 PM	*Deinocheirus—one of the few Mongolian dinosaurs not represented in Alberta.* **Philip Currie, University of Alberta.**