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OFFICERS			THE SOCIETY WAS INCORPORATED IN 1986
President			as a non-profit organization formed to:
Cory Gross	president1@albertapaleo.org	(403) 617-2079	 Promote the science of palaeontology through study
Vice-President			and education.
Dr. Emily Bamforth	curator@dinomuseum.ca		2. Contribute to the science by: discovery; responsible collection;
Treasurer			curation and display; education of the general public; preservation
Mona Trick	giftshop@albertapaleo.org	(587) 578-4579	of palaeontological material for study and future generations.
Secretary			3. Work with the professional and academic communities to aid in the
Vaclav Marsovsky		(403) 547-0182	preservation and understanding of Alberta's heritage.
Past-President			
Wayne Braunberger	pastpres@albertapaleo.org	(403) 278-5154	MEMBERSHIP: Any person with a sincere interest in palaeontology is
DIRECTOR			eligible to present their application for membership in the Society. Please
DIRECTORS Editor			enclose membership dues with your request for application.
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Vaclav Marsovsky		(403) 547-0182	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.

Friday, January 20, 2023—**Steve Kary,** Irvine Regional Palaeontological Survey. *Irvine Palaeontological Survey and the palaeontological history of the region.* (See Page 3).

Friday, February 17, 2023—Dr. Craig Scott, Royal Tyrrell Museum of Palaeontology

and

Dr. Lisa Bohach, Stantech Consulting. *Paleocene mammals and their fossil sites in the Calgary area.* (See Page 4).

Saturday and Sunday, March 18 and 19, 2023—Paleo 2023 (see Pages 10-12).

Check the APS website for updates! www.albertapaleo.org/meetings.html

ON THE COVER: Alberta fossils! Productid brachiopods in limestone of the Mount Head Formation (Lower Carboniferous), Cascade Mountain, Banff National Park, Alberta. Photo by Howard Allen.

Upcoming Events

January

Steve Kary

Irvine Regional Palaeontological Survey

Irvine Palaeontological Survey and the palaeontological history of the region

Friday, January 20, 2023, 7:30 P.M. Mount Royal University, Room B108

The first dinosaur remains found in Alberta were reported in Irvine, Alberta in the 1884 by J. Hoyes Panton, M.A. Since then, dinosaur hunting has become synonymous with much of Alberta palaeontology. Irvine has been visited by multiple crews over the course of the last 140 years and has yielded 14 new species, including *Chasmosaurus irvinensis*. Most of these finds, including thirteen holotypes from one site, come from extremely rich microvertebrate sites.

The bedrock of Irvine is primarily the uppermost Dinosaur Park Formation, specifically the Lethbridge Coal Zone and a large amount of relatively barren Bearpaw Formation that overlies it unconformably, likely due to storm scouring. This area is extremely important spatially and temporally due to largely being overlooked in favour of areas such as Dinosaur Provincial Park. One reason for this is that landowner access has been extremely spotty over the course of the last 100 years and currently a sweeping no-trespassing policy, enforced by cameras and legal action, dominates the area. More recent deposits, including the Saskatchewan Sands and Gravels and glacial till are present in the region but are almost entirely barren.

The palaeo-fauna of Irvine is largely aquatic in nature and represents a near-zero water velocity as large rivers met the ocean. Fish, champsosaur and turtle are the most common finds in Irvine. All the major dinosaur groups have been found in these sites, including a complete juvenile pachycephalosaur squamosal. Other outstanding finds include fragmentary pterosaur, neonate ornithomimid foot elements, fossilized skin, and an articulated juvenile hadrosaur skeleton with the potential of a second nearby in the form of two to three associated ribs weathering out. Because of when this rock was laid down, this skeleton has potential of being an elusive *Lambeosaurus magnicristatus*. Mixed bone beds have been found as well, primarily of small to medium sized ceratopsians. Several other skeletons have been found in the region, including a headless hadrosaur with preserved skin.

The Irvine Regional Palaeontological Survey has teamed up with academic institutes to pursue the potential for statistical sampling of microvertebrate sites as well as excavations. As of right now, plans have not moved forward in part due to new land owner access issues.

Biography

Steve Kary, B.Sc., is the head and founder of the Irvine Regional Palaeontological Survey. Steve began in palaeontology at a very early age and found himself job shadowing **Dr. Don Brinkman** at the age of 16, which was followed by volunteer work in Dinosaur Provincial Park. Upon entering Mount Royal University, Steve was invited to work at the Burgess Shale by **Dr. Paul Johnston**. After two years at Mount Royal, he finished a double major (Biology/ Earth Science) at the University of Alberta with an undergraduate project on the evolution of limb reduction and an undergraduate thesis on *Coniophis* pipe-snake vertebrae.

Immediately after graduating, Steve worked for nine months at FMA Heritage/Stantech as a Palaeontological Assistant. Since 2009, he has bounced around palaeontology related jobs, including specimen procurement for Telus World of Science's Charles Darwin display and interpretation work for Body Worlds. Further palaeontological consulting work as a subcontractor for Steppe palaeontological consulting gave Steve a wide range of experiences and opened his eyes to the wide variety of palaeontology all over Alberta and British Columbia. Steve's unorthodox path in palaeontology led to forming the Irvine Regional Palaeontological Survey. This ambitious privately funded survey focused on landowner education and partnership, as well as teaching dozens of volunteers while scouring the bedrock for microvertebrate sites and other fossils.

Think about volunteering for APS! Elections will be held in May. See Page 8.

February

Dr. Craig Scott

Royal Tyrrell Museum of Palaeontology

Dr. Lisa Bohach

Stantech Consulting Ltd.

Paleocene mammals and their fossil sites in the Calgary area

Friday, February 17, 2023, 7:30 P.M. Mount Royal University, Room B108

Mammals and other vertebrates of Paleocene age from Alberta are presently known from nearly 100 fossiliferous localities that range from the early (Puercan North American Land Mammal Age (NALMA)) to late (late middle Tiffanian NALMA) parts of the epoch, and geographically from near Swan Hills in the north-central part of the province to south of the city of Calgary. Most these localities are concentrated near the cities of Red Deer and Calgary and surrounding areas, where exposures of the Paskapoo and Porcupine Hills formations have produced extraordinarily well-preserved specimens that document vertebrate evolution primarily during the early and middle parts of the Paleocene Epoch (approximately 65–60 mya).

Vertebrate fossils are preserved in a variety of geological settings in Paleocene strata. The most common are microvertebrate sites where small bones, teeth and scales of fish, crocodile, champsosaur, turtle, lizard and mammal occur in shell beds. Shell bed lag deposits, frequently found at the base of channel sandstones, are the most common type of productive mammal microsite in Alberta. Lake shore shell beds and palaeosols (fossil soil layers) are also common sources for mammal fossils. Occasionally, other depositional environments contain an unusual abundance of well-preserved mammal fossils, and exceptional deposits from an oxbow channel infill and a pointbar deposit are reviewed. Clay drapes that seal the fossiliferous layers at both these sites are possibly responsible for the excellent preservation.

The combined research efforts of the University of Alberta Laboratory for Vertebrate Paleontology and Royal Tyrrell Museum over the past fifty years has resulted in considerable insight into the diversity of vertebrates that existed during the Paleocene, with special illumination on the rich record of fossil mammals. Although the first mammal of Paleocene age in Alberta to be recognized as such was discovered in Calgary, little work had been done in this region prior to twenty years ago. Concerted efforts in the ensuing years have resulted in the discovery of an extraordinary number of fossiliferous localities and, accordingly, a much better understanding of the diversity of extinct mammals that existed in southern Alberta more generally. Like those of penecontemporaneous faunas from more southern parts of the Western Interior, Paleocene mammalian faunas from Alberta consist primarily of multituberculates and so-called "proteutherians" (eutherians of generally primitive aspect with no close living relatives), with primates, archaic ungulates, eulipotyphlans and carnivorans making up increasingly smaller fractions and marsupials being extremely rare. The mammalian faunas are dominated by the remains of small-bodied taxa, with the largest mammals being represented by wolf-sized "condylarths" and larger, but rarer pantodonts.

Biography

Lisa Bohach, Ph.D., P.Geol., is a palaeontological consultant with Stantec Consulting Ltd. Her job is to work with developers to address palaeontological requirements issued under provincial/territorial legislation. She has 21 years experience in this role and has worked throughout western Canada with occasional forays in the Arctic and eastern Canada. Lisa specializes in invertebrate palaeontology and sedimentary geology with a particular interest in interpreting the depositional setting and environment of fossil sites.

Craig Scott, Ph.D., is a palaeontologist and Director of Preservation and Research with the Royal Tyrrell Museum of Palaeontology. He is an expert on early mammals, particularly those of Late Cretaceous and Paleocene age. His research focuses primarily on mammals of Paleocene age from southern Alberta, and he has published dozens of scientific papers detailing the systematics, evolution and biogeography of these mammals and their application to biochronology.

Fossils in the News

Inside the Royal Tyrrell Museum blog Borealopelta: a selective herbivore

https://royaltyrrellmuseum.wpcomstaging. com/2022/12/20/borealopelta-a-selective-herbivore/ ____



Earth science enthusiasts keep APS President Cory Gross busy at the ESfS event.

Article and photos By Dan Quinsey

he 10th Annual Earth Science for Society (ESfS) Exhibition was held at MacEwan Hall, University of Calgary, November 27–29. The event was hosted by the Canadian Society of Exploration Geophysicists (CSEG) Foundation.

ESfS is a fun, educational, and dynamic geoscience

outreach event in which students, families, youth groups and the public are given an opportunity to explore the wonders of Earth science.

Cory Gross and **Ashley Johnston** did a fantastic job setting up the Alberta Palaeontological Society exhibit. Various displays showcasing "Alberta's First Fossil Finders," a collection of fossils and associated animal replicas, and an interactive "Timeline of Ancient Alberta" exercise matching rocks and fossils



Lots of fossis for hands-on public viewing at the APS table.

to a geological time scale were showcased. Also on display was a large diorama of a Devonian reef, supplied by Cory.

Cory and **Mona Trick** staffed the APS table Sunday from noon to 5:00 P.M. Cory and **Dan Quinsey** crewed the Monday shift from 9:00 A.M. to 2:15 P.M. and 6:00 P.M. to 9:00 P.M. Cory worked the final shift, Tuesday from 9:00 A.M. to 2:15 P.M.

The ESfS welcomed twenty-five youth groups and twenty-one school groups from seventeen different schools to the this free, family-friendly event. The general public were also invited to attend. A scavenger hunt booklet was provided to participants to help guide them through the exhibition. Exhibitors stamped the booklets for those participants who were actively involved at each exhibit.

There were three short presentations Sunday in the Geo-theatre. These were geared to the public, especially families with students in grades 7 to 9. **Dr. Dale Leckie**, Author and Adjunct Professor, Department of Geoscience, University of Calgary spoke from 1:00 to 1:20 P.M. and again at 3:00 – 3:20 P.M. on "The Geology of Alberta's most Scenic Landscapes—Erratics, Impacts and Algae." **Cory Gross**, Science, History, and Art Education, Consultant and Educational Tour Guide spoke from 2:00 to 2:20 P.M. on "The Age of Dinosaurs: Life in Cretaceous Alberta."

The event showcased four themed pavilions: "Energy for Us," "Resources and You," "One Dynamic Earth" and "Our Future!"

Features were hands-on and interactive exhibits demonstrated the importance of the Earth sciences in our everyday lives. Geoscience volunteers actively guided youth groups and students through the exhibits providing opportunities to learn about Earth sciences and about potential career opportunities. A total of twenty-six exhibitors attended the event.

The ESfS Exhibition was generously sponsored by several organizations including: Canadian Natural Resources Limited, CSEG Foundation, Government of Alberta, Parex Resources, CSPG Foundation, Canadian Geological Foundation, Chevron, Birchcliff Energy, Canadian Association of Energy Contractors (CAOEC), CRESRC.CA, TBI, APEGA Foundation, Pulse Energy Data, Tourmaline Oil Corp., Inter Pipeline, Imperial, McDaniel, Cenovus Energy, Scotia Wealth Management, Earth Signal, Journey 2050, E3 Project: Earthquake Early Warning Education, E3 Lithium, Evictradon, Statcom Ltd., Brian and Elaine Russell, and several anonymous donors.

Educator resources were donated by APEGA Foundation, Journey 2050, Inside Education, Ocean Networks Canada, TenPeaks, Geoscientists Canada, Canadian Rockies & Foothills Biogeoscience Institute, E3 Project: Earthquake Early Warning Education, CRESRC.CA, Royal Astronomical Society of Canada, Evictradon, Natural Resources Canada, CSEC Foundation, CSPG Foundation, and Drumheller GeoTours.

Door prizes were donated by APEGA Foundation, Canmore Cave Tours, Journey 2050, Ocean Networks Canada, Heritage Park, Maptown, Calaway Park, Alberta Palaeontological Society, Mining Matters, E3: Earthquake Early Warning Education, Bow Habitat Station, CRESRC.CA, Royal Astronomical Society of Canada, Evictradon, Drumheller GeoTours, E3 Lithium, Sigma, TenPeaks, Reyu Sahota, Telus Spark, Bolder Climbing Community, Watersheds, and Silver Cove.



Cory holds students' attention with the APS fossil display.



2023 Elections

By Wayne Braunberger, Past President

Elections for all Board positions (officers and directors) will take place at the Society's Annual General Meeting on May 12, 2023. Positions to be filled are:

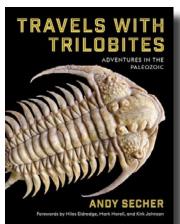
Officers (1 year term) President Vice President Treasurer Secretary **Directors (2 year term)** Program Coordinator Field Trip Coordinator Membership Editor

Terms begin September 1. **Program Coordinator Harold Whittaker has indicated he will not be standing for re-election**. If you are interested in that directorship or any other position, please contact **Wayne at (403) 278-5154** or by email, **pastpres@ albertapaleo.org** or any member of the Board. \Box

Book Review

By Georgia Hoffman

Travels With Trilobites: Adventures in the Paleozoic, by Andy Secher, 2022. Columbia University Press, New York, 416 pp. (hardcover, US\$39.95, ISBN 9780231200967 and E-book, ISBN 978023153865).



This book covers "everything trilobite" and features hundreds of stunning, high-resolution photos of a vast array of trilobites. Topics range from trilobite eyes and eggs to trilobite hunting, trilobite collecting, trilobite museums, and even fake trilobites. Tales about famous trilobite localities and trilobite hunters illustrate our long fascination with these Palaeozoic creatures. If you're into trilobites, you'll enjoy this book. If you're not, this book could change your mind. The author, **Andy Secher**, is a field associate in palaeontology at the American Museum of Natural History and co-editor of the museum's trilobite website. □



Sessions January to March, 2023

By Mona Trick

E ven though there will be snow on the ground, you can still find fossils this winter! During four sessions scheduled for January through March, 2023, we will use microscopes to search the matrix provided by **Dr. Jessica Theodor** and **Dr. Alex Dutchak** of the University of Calgary to find tiny teeth and bone fossils from the Cypress Hills Formation (Middle Eocene) of Saskatchewan. All of the fossils found will be used to aid their research. We will be using microscopes in Room B213 at Mount Royal University (Main Building) from 1:00 until 3:30 P.M. on the following **Sundays**:

January 15
February 12
February 26
March 12

Note that we have changed these sessions to **Sunday** afternoons, to take advantage of free parking at Mount Royal University on Sundays.

We are very grateful to Mount Royal University for allowing us to use their microscopes and lab, which allows us to offer these sessions at no cost.

Registration is not required, but if you phone or email **Mona (587) 578-4579** or **giftshop@albertapaleo.org** and let me know that you are planning to attend, then I can inform you if we need to cancel a session.

No experience is required. Bring tweezers or a small paint brush to pick the tiny fossils from the matrix and a pen to label your finds. \Box

Building a Reference Library A Beginner's Guide

By Dan Quinsey

was recently asked by a friend which book or books would be good for their grandchildren who are starting to show an interest in fossils, rocks and minerals. Both grandchildren are 10 and 12 years of age and are quite bright and ambitious. This is what I advised.

There are many books on the subject of Earth Science and knowing what to buy can be very overwhelming, especially when first starting out.

People usually want as much information as possible for the lowest cost. Keep in mind, price does not necessarily mean quality. There are some very good books available at reasonable prices. Soft cover editions are usually much cheaper than hard cover editions. Some great finds may also be found in used book stores, especially out-of-print publications.

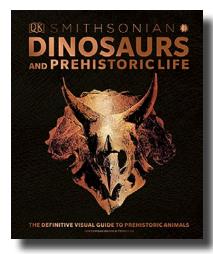
Determine your needs and then research or ask a mentor what books they believe would satisfy your needs. Check your local library and if available, preview the book to see if it suits your needs before you purchase. As time goes by and your knowledge evolves, so will your library.

The subject of palaeontology is an evolving science. Consider the publication date when purchasing a book. Older books may contain out-dated information; however, some are considered "must have" publications by experts. Do your research! Low-cost fossil identifiers are usually generalized but are very useful to the beginner. As you become more expert, you will be able to determine your needs more effectively and make confident purchases.

The DK (Dorling Kindersley) Handbook series is a great start for the beginner. These beautiful books thoroughly explain a number of topics in a nice chronological order that is easy to follow. The simple style drawings are very helpful and properly match the explanations. However, DK books are focused on the general picture rather than a deep understanding on specific subjects.

Beware: DK are notorious for reissuing their books with a different cover and name. DK originally acquired the *Eyewitness Handbook* series, reissuing them with the DK cover, but the content did not change. DK have since reissued their *Handbook* series a number of times, most recently with a couple updates under the *Smithsonian Handbook* name.

Here are four good DK starter books and one other publication:



DK Smithsonian Dinosaurs and Prehistoric Life: The Definitive Visual Guide to Prehistoric Animals (2019) Publisher: DK, 440 pages, ISBN 9781465482490 (Amazon \$64.35).

DK Smithsonian Handbooks:

Dinosaurs and other Prehistoric Life (2021) Publisher: DK, 224 pages, ISBN 9780744028386 (Amazon \$13.37; an alternative to the first book).

DK Smithsonian Handbooks: *Fossils* (2021) Publisher: DK, 320 pages, ISBN 9780744030006 (Amazon \$18.99).

DK Smithsonian Handbooks: *Rocks and Minerals* (2021) by Chris Pellant and Smithsonian Institution. Publisher: DK, 256 pages, ISBN 9781465497741, (Amazon \$18.97).

A Field Guide to the Identification of Pebbles (2006) by Eileen Van der Flier-Keller, accordion-folded pamphlet. Harbour Publishing, ISBN 9781550173952 (Amazon \$7.87).

These books are shipped from and sold by Amazon.ca. The prices were in effect October 12, 2022 and are subject to change. All of the DK books are also available from your local Chapters Indigo bookstore but at slightly higher prices. Do your research!

Paleo 2023 Alberta Palæontological Society's 26th Annual Symposium

The Symposium

Paleo 2023 is a two day event with talks, posters and displays on Saturday, March 18 and a workshop on Sunday, March 19. 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 2023. The symposium will feature presentations from avocational, student and professional palaeontologists from all over western Canada. We welcome posters or displays associated with palaeontology. Our aim is to showcase palaeontology to the general public. 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 8:30 A.M. Saturday, March 18. During the day a poster session period will be specified; please be available at least during this time for discussion of your exhibit. Deadline for submitting requests for poster space is February 15, 2023.

Paleo 2023 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 other illustrations, 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 authors' mailing and email addresses should be included. Submission deadline is February 15, 2023. Download guidelines for authors (PDF) from our website, www.albertapaleo.org or contact the Editor (see contact information, next page).

Sunday Workshop—March 19, 2023

A workshop will be offered at Mount Royal University, Room B213. Attendance is limited, so register early! To register, contact Harold Whittaker (see next page). Please indicate your preference for the morning or afternoon session, or indicate if you have no preference. Registration fee is \$10.00 and the deadline is March 15, **2023**. 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 68024 Crowfoot PO, Calgary, AB T3G 3N8.

Curation of fossil collections, with Wayne Braunberger, Past President of the Alberta Palaeontological Society and retired oil and gas geologist. A morning session from 9:00 A.M. to 12:00 P.M. and an afternoon session from 1:00 р.м. to 4:00 р.м. will be offered.

Participants will be immersed in the basics of curating a fossil collection

Part 1: Collecting and recording locality data

Part 2: Curation topics

- a) Accession numbers, numbering and applying numbers to specimens
- b) Display and storage labels
- c) Cataloguing specimens
- d) Specimen storage
- Part 3: Cataloguing your fossil collection by computer

Participants are recommended to bring a notepad and pen.

Contact Information

Paleo 2023 Committee Chairperson: Mona Trick, (587) 578-4579, symposium@albertapaleo.org Posters & displays: Lacey Holoboff (403) 894-0698, posters@albertapaleo.org Presentations and Workshops: Harold Whittaker (403) 286-0349, programs1@albertapaleo.org Abstract submissions: Howard Allen (403) 862-3330, editor2@albertapaleo.org Advertising: Mona Trick, (587) 578-4579, symposium@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 $2' \times 3'$ to $4' \times 8'$. 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!

A great blog article with tips for poster presenters is available here: http://blogs.lse.ac.uk/impactofsocialsciences/2018/05/11/how-to-design-an-awardwinning-conference-poster/

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).

Most of all, have fun!

APS Paleo 2023

Mount Royal University

4825 Mount Royal Gate SW, Calgary, Alberta

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

Lectures and poster displays—Saturday, March 18, 2023, 9:00 AM to 4:30 PM Workshops—Sunday, March 19, 2023, 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 18 speaker schedule. Times and titles may change. All talks will be held in Jenkins Theatre, lower level of main building, Mount Royal University

9:00 ам	<i>Opening statement by</i> APS President Cory Gross <i>and symposium instructions by</i> APS Programs Coordinator Harold Whittaker		
9:15 ам	The "Rasetti Stone" and the tree of life—A phylogenetic perch for the enigmatic Stenothecoida. Dr. Paul Johnston, Mount Royal University		
10:15 ам	Coffee Break.		
10:30 ам	Triassic fossils from Southern Brazil. Dr. Miriam Reichel-Bodner, Lifeways of Canada		
11:00 ам	New discoveries from Alberta reshape our understanding of tyrannosaur biology. Jared Voris, University of Calgary		
11:30 ам	2022 fieldwork and technical considerations on the future excavation and removal of a subadult hadrosaur with extensive skin impressions, Dinosaur Provincial Park, Alberta. Darren Tanke, Royal Tyrrell Museum of Palaeontology		
12:00 рм	Lunch Break and Poster Displays.		
1:00 рм	Mining for the ammonite gemstone in southern Alberta and some of the surprises along the way! John Issa, Korite International		
1:30 рм	Mosasaur menus: Feeding ecology of Bearpaw Sea mosasaurs and other vertebrates. Dr. Femke Holwerda, Royal Tyrrell Museum of Palaeontology		
2:00 PM	Poster session, coffee break. Poster presenters are requested to be with their posters.		
3:00 рм	The problem of protoceratids—the first horned artiodactyls. Dr. Jessica Theodor, University of Calgary		
3:30 рм	Interdisciplinary records of extinction and exceptional fossil preservation in the Early Jurassic Ya Ha Tinda Lagerstätte from Alberta. Dr. Rowan C. Martindale, University of Texas, Austin		
4:30 рм	Closing remarks for Paleo 2023. Harold Whittaker, APS Programs Coordinator		

Check our website for updates: www.albertapaleo.org/meetings.html