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The Society was incorporated in 1986, as a non-profit organization formed to:

- Promote the science of palaeontology through study and education.
- Make contributions to the science by:
 - Discovery
 - Collection
 - Description
 - Education of the general public
 - Preservation of material for study and the future
- Provide information and expertise to other collectors.
- 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

THE BULLETIN WILL BE PUBLISHED QUARTERLY: March, June, September and December. Deadline for submitting material for publication is the 15th of the month prior to publication.

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NOTICE: Readers are advised that opinions expressed in the articles are those of the author and do not necessarily reflect the viewpoint of the Society. Except for articles marked "Copyright ©," reprinting of articles by exchange bulletins 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, December 14, 2012—Annual Christmas Social and APS Enrichment Workshop:
Dan Quinsey on How to Make a Scientific Poster using PowerPoint (See Page 3).

Friday, January 18, 2013—Ben Borkovic, University of Calgary.
Sexual Dimorphism in the Fossil Record (See Page 3).

Friday, February 15, 2013—Tetsuto Miyashita, University of Alberta.
History of Collecting Tyrannosaurs in Alberta and an Emerging View of Their Growth and Evolution (See Page 4).

Saturday & Sunday, March 16–17, 2013—Paleo 2013 Annual Symposium (See Pages 13–14).

ON THE COVER: *Olenellus* sp. trilobite. Lower Cambrian, Eager Formation, southeastern British Columbia. Width of view is 28.5 mm. Photo by Howard Allen.

Field Trip Coordinator Needed!

By Wayne Braunberger, President

The position of Field Trip Coordinator remains vacant. **Unless this position is filled the 2013 field trip program is in jeopardy.** If you are interested in this position please contact me or any member of the Board for further information. Ideally the position should be filled by January 2013 in order that the summer field trips can be announced in the March *Bulletin*.

Phone: (403) 278-5154

E-mail: president1@albertapaleo.org

Upcoming Events

December

Dan Quinsey

Alberta Palaeontological Society

APS Enrichment Workshop Series How to Make a Scientific Poster using PowerPoint

Friday, December 14, 2012, 7:30 P.M.

Mount Royal University, Room B108

Microsoft PowerPoint is a popular software program for creating graphic presentations.

PowerPoint can be used to make different types of presentations. A file of multiple pages can be used for a media presentation which is viewed using a computer and digital projector; a multi-page file can also be used to make a sequence of 35 mm projection slides or overhead transparencies. When designing a poster, you use PowerPoint as a design program to make one page, which holds all the information you

wish to present.

PowerPoint enables you to place text, data charts, tables and images onto a page to create a poster. You determine the page size and all other aspects of the poster by using the PowerPoint menus and tools.

This workshop will help acquaint you with the many PowerPoint functions that can be accessed to design an effective and interesting scientific poster.

Biography:

Dan Quinsey has been a member of the Alberta Palaeontological Society for many years and currently holds the positions of Past President and Social Committee Chairperson. He has also served as President, Vice President, Secretary, Chair of the Public Outreach/Education Committee and representative of the Alberta Palaeontological Advisory Committee (APAC). Dan has a Baccalaureate in Palaeontology from Mount Royal University, degrees in Business Management from Chinook Learning Services and Electronic Data Processing from Loyalist College, and undergraduate degrees in Systems Analysis and Design and Architectural Drafting also from Loyalist College.

Current and previous affiliations include the Tyrrell Museum of Palaeontology, Calgary Junior Chamber of Commerce—JAYCEES, Calgary Philatelic Society, and Big Brothers and Big Sisters of Calgary and Area.

Dan has published work in *Deposits Magazine* (UK), initiated the *APS Guide to Common Vertebrate Fossils from the Cretaceous of Alberta* book project and published the book *Moose Mountain, Alberta: Exploring the Natural History of Canyon Creek and Area*. □

January

Ben Borkovic

University of Calgary

Sexual Dimorphism in the Fossil Record

Friday, January 18, 2013, 7:30 P.M.

Mount Royal University, Room B108

The horns of ceratopsian dinosaurs have long captivated the imaginations of palaeontologists and the public alike. Images are often conjured of a lone *Triceratops* dueling to the death with a hungry *Tyran-*

nosaurus, or of two large males battling head-to-head for supremacy over a watching herd. Yet despite more than a hundred years of study, what is known about how these horns were actually used, and what sort of selection pressures shaped their evolution, remains little more than speculation.

One interesting aspect of this problem is the apparent lack of sexual dimorphism in the horns (or bodies, for that matter) of these dinosaurs. Little evidence has been found to support a difference in horn morphology between the sexes in any ceratopsian species, and to date not a single specimen has been identifiable as a definitive male or female. Are males and females really the same, or are we perhaps going about this the wrong way?

A review of sexual dimorphism from across the vertebrate fossil record reveals some fascinating examples of dimorphic fossil species, as well as examples of how to, and how not to, go about seeking clues from the sexes. Drawing from this, various methods are tested for their ability to demonstrate sexual dimorphism, of size and shape, in the horns and skulls of some modern mammals. These methods are then applied to the horns of *Triceratops* and *Centrosaurus* in an attempt to answer that question: Are the horns of male and female ceratopsians really the same? And if so, what might this mean about how they lived and evolved?

Biography

Ben Borkovic is an M.Sc. student at the University of Calgary. Growing up in the Northwest Territories, he developed an enthusiasm for the natural world and went on to study geology and biology at Queen's University. Upon graduating he returned to Yellowknife to work for two years before deciding to pursue his life-long interest in palaeontology at the U of C. Under the supervision of **Dr. Anthony Russell**, Ben has been studying the evolution of sexual dimorphism and the sexual differences in the horns of mammals, and trying to wrangle similar information from the horns of dinosaurs. His research has led him into the fossil collections of several major museums in eastern Canada and the United States, as well as here in Alberta and Saskatchewan. When not pondering the evolution of dinosaurs, Ben has spent his time engaged in the Calgary sports scene, and escaping to the snowy mountains. □

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Tetsuto Miyashita

University of Alberta

History of Collecting Tyrannosaurs in Alberta and an Emerging View of their Growth and Evolution

Friday, February 15, 2013, 7:30 P.M.

Mount Royal University, Room B108

Alberta is the most fertile of all places to hunt for tyrannosaur fossils. More tyrannosaur species are known from Alberta (*Albertosaurus*, *Daspletosaurus*, *Gorgosaurus*, and *Tyrannosaurus*) than from other famous localities such as Montana (USA), Gobi Desert (Mongolia), or Liaoning (China). Alberta also overwhelms other localities in the number of 75%–100% complete tyrannosaur skeletons. Many of the best-preserved specimens are on display in museums across North America and casts of the Albertan tyrannosaur specimens are in almost every museum in the world with decent collections of dinosaur specimens. So the chance is quite good that you are looking at an Albertan tyrannosaur if you happen to see a mounted tyrannosaur skeleton or a skull that is not *Tyrannosaurus rex* in museums outside Alberta.

Who collected tyrannosaurs from Alberta and what have we learned from the Alberta tyrannosaurs? I will revisit the history of tyrannosaur collecting in the province, including: the skull of *Albertosaurus* that gave Joseph Burr Tyrrell a fine dinosaur museum named after him; the nearly perfect skeleton of *Tyrannosaurus* buried under rubble before excavation was complete; a growth series of *Gorgosaurus* that reveals how fast the animal grew and how tyrannosaurs survived “mid-life crisis”; and a bonebed of *Albertosaurus* that took the perseverance of **Philip Currie** to rediscover nearly a century after Barnum Brown left the quarry (and resulted in the recent TV documentary and book *Dinosaur Gangs*).

The last part of the presentation is on a new species of *Daspletosaurus* from Alberta and the realization of a previously unknown subgroup of tyrannosaurs in the Campanian of western North America. The new species is represented by many well-pre-

served skulls and skeletons. It consists of a subadult with its face bitten by another tyrannosaur, an adult found when a camera lens cap tumbled down a hill, and one of the best tyrannosaur specimens from Alberta with a complete skull (the excavation of which took three different teams from 2001 to 2012).

Biography

Tetsuto Miyashita is a Ph.D. student at the University of Alberta. A book by the prominent Canadian dinosaur palaeontologist, Philip Currie—a Christmas gift from parents when he was ten—sparked his dream of becoming a palaeontologist. He moved to Drumheller, Alberta, at age 16 to volunteer for the Royal Tyrrell Museum of Palaeontology.

Subsequently, during four years of undergraduate and two years of master's work at the University of Alberta, he was supervised by Philip Currie, invertebrate zoologist Rich Palmer, developmental biologist Sally Leys, ichthyologist Alison Murray, and marine ecologist Richard Strathmann. In their labs, he got his hands on various projects, including anatomy of early vertebrates, systematics of tyrannosaurs, soft tissues in ankylosaurs, biomechanics of marine invertebrate larvae, ecology of intertidal snails, and development of fishes. Recently, he was on a tour

through China to study basal tyrannosaurs and other theropod dinosaurs. □

Program Summary

W. Scott Persons, IV

University of Alberta

Dragon Tails: An Asiatic Dinosaur Expedition and a Study of the Convergent Evolution of Winged Archosaurs

Friday, November 16, 2012

This talk was a combination travel slideshow and scientific presentation. In the summer of 2010, Scott Persons traveled to South Korea, China and Mongolia. He covered a joint Canada, Korea, China and Mongolia expedition into the Gobi Desert where



A spectacular specimen found in the Gobi Desert, Mongolia. Photo courtesy of Scott Persons.



Scott Persons in tourist mode at the Great Wall of China. Photo courtesy of Scott Persons.

the expedition found dinosaur eggs, footprints and the fossil skeletons of tyrannosaurs, oviraptorosaurs, ornithomimids, and titanosaurs. Three weeks were spent photographing and measuring some of China's famous feathered dinosaur museum specimens.

Scott also devoted time to his personal research,



Dinosaur footprint natural cast in the field. Photo courtesy of Scott Persons.

studying the similarities between the tails of dromaeosaurid (raptor dinosaurs) and primitive pterosaurs (flying reptiles).

Biography

Scott Persons is originally from North Carolina. He completed an undergraduate degree at Macalester College in St. Paul, Minnesota. He earned his Master's degree at the University of Alberta where he is presently working on his Ph.D. program focusing on the tail anatomy of non-avian theropod dinosaurs, which includes the big carnivores like *Tyrannosaurus* and *Albertosaurus*. Some dinosaur tail muscles were connected to their leg bones, as well as to their hips, so his work has direct implications for assessments of dinosaur speed. Scott is also concerned with charting evolutionary trends in tail morphology across the theropod lineage and with the specialization of different tail forms in different theropod groups. □

Microfossil sorting set for January and February 2013

By Mona Marsovsky

Escape the winter blues by finding fossils in the E-matrix (soil) provided by **Dr. Don Brinkman** of the Royal Tyrrell Museum, using microscopes provided by Mount Royal University (MRU). All fossils we find will be used at the Royal Tyrrell Museum for research. Sessions will take place in Room B213 at MRU from 1:00–3:30 P.M. Registration is not required, but if you let me know (403-547-0182, giftshop@albertapaleo.org) that you are planning to attend, I can inform you if we need to cancel a session. No experience is required. It is very important that you bring tweezers to pick the tiny fossils from the soil and a pen to label your finds.

Microfossil sorting sessions are scheduled for the following Saturdays:

January 12, 2013

January 26, 2013

February 9, 2013

February 23, 2013

March 9, 2013 □

British Natural History Museum Produces Evolution App for iPads

By Godfrey Nowlan

A new app was released in July 2012 by the British Natural History Museum (NHM) for the Apple iPad dealing with the evolution of life on Earth. The author is Douglas Palmer, a well known science writer and lecturer at the University of Cambridge Institute for Continuing Education in the United Kingdom. I will disclose up front that Douglas was one of my professors at Trinity College Dublin in the late 1960s. He has published a number of books, most recently in 2011, an excellent book entitled *A History of the Earth in 100 Groundbreaking Discoveries*, co-published by Firefly Books in Canada.

The *NHM Evolution* app is available for CDN\$13.99 from the iTunes App Store. As someone who acquired an iPad relatively recently, I have to confess that this is much more than I have paid for any of the apps that I have installed on my device; in fact, almost all of my apps have been of the free variety. I suspect that most iPad users are like me with the expectation that apps are free or at very moderate cost. Therefore this app may be a tough sell, but before you rule it out on the basis of cost, let me review for you this extensive and impressive application.

The home page of the app is designed as an historic portal with beautiful images of an assortment of fossils, each of which can be tapped to reveal a larger version of the same image together with a description of the fossil, some additional images and brief comments on its age, size, distribution, preservation, environment and life habit. This home page is

enough to whet the user's appetite for learning more about the history of life on Earth.

The second selection on the list of contents is a series of stories on the so-called Timeband. It starts with life's microbial beginnings in the Strelley Pool of Western Australia about 3.5 billion years ago (Figure 1), jumps quickly to the Snowball Earth and the Ediacaran fauna and runs through about 100 stories sequentially in time all the way through to the killing

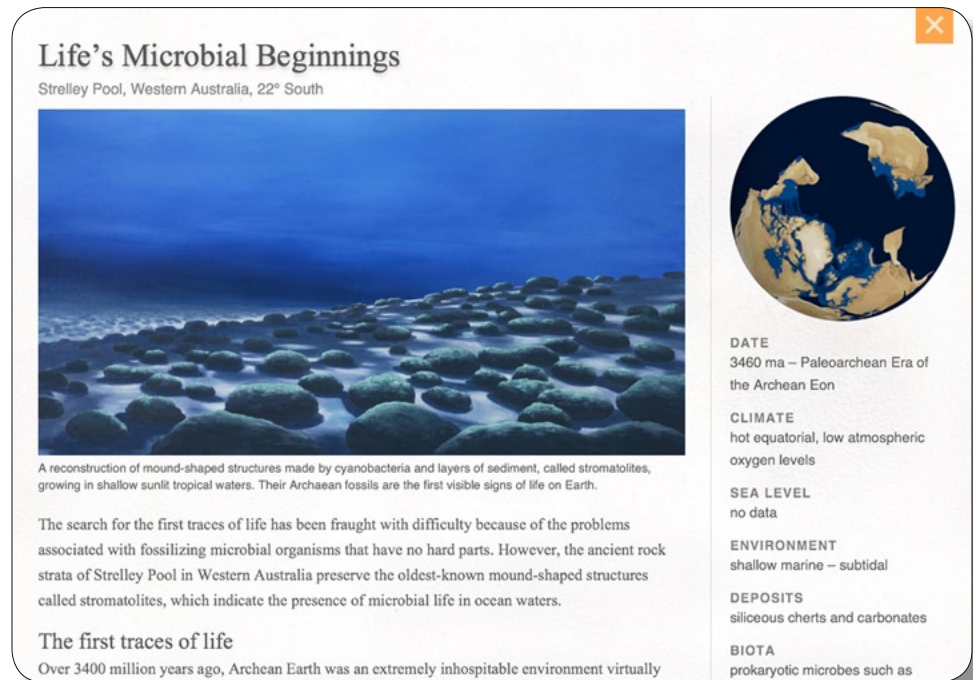


Figure 1. View of a partial page returned when a heading on the "Timeband" was tapped.

off of the Pleistocene megafauna in New Zealand by humans about 1000 years ago. Each portion of the Timeband has an artistic representation of a time interval, done by talented artist Peter Barrett, with a title and tappable blue dots that can be turned on and off. Tapping a blue dot opens another screen that describes the organism under the dot. There are several dots on each screen resulting in a veritable mountain of information on a wide variety of fossils from superb localities all over the world. Canadian localities that are the subject of stories in the Timeband include the usual suspects: the Mistaken Point fauna



Figure 2. An example of the elegant art work on the Timeband showing Late Cretaceous dinosaurs; there are about 100 different illustrations like this one displayed continuously along the Timeband. Tapping on the screen reveals blue dots that can be tapped to get details on the organism next to the dot. The lower band on the screen allows for more rapid scrolling to specific parts of the Timeband.

for the Ediacaran, the Burgess Shale for Cambrian diversification, Miguasha and Ellesmere Island for the emergence of tetrapods in the Devonian, Joggins for its Carboniferous fossil plants and first reptiles and the Cretaceous dinosaurs of Alberta (Figure 2). The great aspect of the Timeband is that you can scroll through it at your leisure tapping blue dots to gain new information and it is a truly enormous amount of information on many of the world's greatest fossil localities. If you want to find something quickly, there is a smaller scrolling bar at the bottom of the screen that allows you to scroll more quickly to individual stories.

The third selection on the list of contents is a geological timeline that shows the eons, eras, periods, epochs and ages in a colourful horizontal scrolling bar combined with the same artistic representations from the Timeband. Tapping on the names in the timeline allows you to read or listen to a description of the time interval that you tapped. Tapping the Timeband images brings up stories that describe the major events in Earth history through key localities on Earth. Each panel that pops up has a palaeogeographic depiction of the globe (taken from another major part of the app called Timeglobe) and brief details on climate, sea level, environments, deposits, biota and other pertinent aspects relating to the locality. The

timeline thus allows for a slightly different perspective on many of the localities from which fossils are described in the Timeband. These are complementary sources of information.

The fourth selection is Geological Timeglobe that shows a globe that can be rotated in any direction by running your finger over it. Different palaeogeographic distributions are shown for times between 647 million years ago and the present. Each globe is labelled with the time that it represents. I found the motion on the globe to be a bit difficult to control. At least under the control of my finger it seems to move a bit erratically, but the globes are attractive and reveal a lot of details of continental palaeogeography for each time period.

Another part of this extensive app is a scrollable series of seventeen Timeline Events from the origin of life to the origin of human art. Most of these events have an audio component so that you can listen to a commentary on the event (Figure 3). There is a possible glitch here, because if you stop a narration for one event and move to another and click the audio button on the new event, the narration from the previous event continues. If you wait a while, the right narration becomes active. The message is that you should listen to the whole narrative—not a bad lesson for the fast and fickle fingers of iPad users. On many of these event pages there are featured videos with scientists from the Natural History Museum describing the event.



Figure 3. An example from the Events button on “Evolving Mammals”. The video of a scientist speaking about the event is available by tapping on the play button in the upper right.

While the home page features an apparently random selection of fossil images that you can tap to find out what they are, a more formal and organized approach to these same images is found under the Exhibition button. In the Exhibition there are more than thirty excellent images arranged in a scrolling timeline. Clicking on each of these provides a larger image, additional images and a description of the fossil. As with other parts of the app there are brief mentions of the group, age, size, distribution, preservation, environment and habit of the fossil organism.

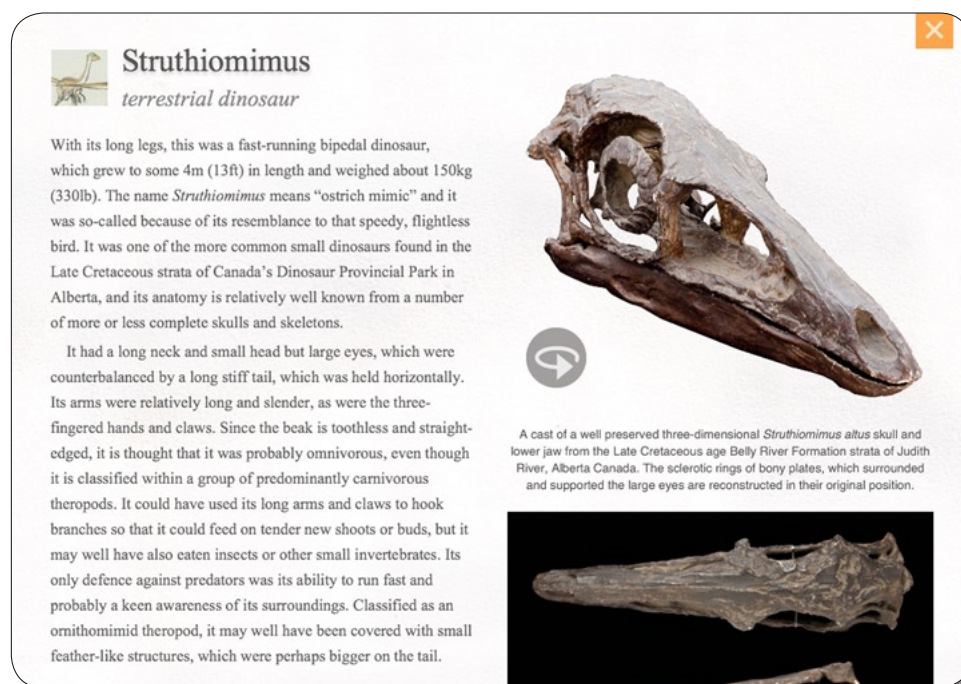


Figure 4. An example of a partial page obtained by tapping on an image of one of the fossils (a *Struthiomimus* skull) under the Exhibition button. Tapping the curved arrow will enlarge the image and allow it to rotate 360 degrees.

Tapping on images with an arrow symbol allows for 360 degree rotation of the fossil, a cool feature that may go some way towards satisfying the CGI-jaded generation (Figure 4).

A button labelled “Library” offers another way of looking at all the data contained in the app. Here the tutorial videos featuring a variety of scientists from the Natural History Museum are gathered together in a single list. A section called “heroes” offers brief biographies of nearly forty individuals who made substantial contributions to the evolution of our ideas about how the Earth developed through time and to the nature of organic evolution. These are dominantly about individuals who made their contributions in the nineteenth and early twentieth centuries. One Canadian, J.W. Dawson makes the list of heroes.

There is a fossil index, arranged alphabetically, of the more than 900 different fossils featured in the app. There is also a list of the hundred sites featured in the app. The lists are clickable and bring you to the content that can be viewed in other more contextual ways elsewhere in the app. This button also features a necessary glossary of terms used in the app and a link to the Natural History Museum web site, where you are encouraged to send questions.

The search function, available in all views, allows you to search fossils, sites and events; results are

returned very quickly. A search on the word “fish,” for example, instantly produces a list of the five stories that deal with fossil fish.

The fact that this is an app extremely rich in information about the evolution of life on Earth is borne out by the need for a user guide button on the main menu. I would encourage you to review this before diving into the information. It provides context and describes each of the menu options and what you can expect to see.

The text is pitched mainly at mature readers; it can be quite complex at times with the unabashed use of technical terms.

The glossary can help out with this, but the text is probably not suitable for most younger readers. It is emphatically not an app on “*Evolution for Dummies*,” but rather a well-researched application with tonnes of solid information, excellent images and art work. The data can be accessed in the context of a timeline or from lists in the library. It is attractive to use and is good for both visual learners and those who prefer to read. I spent hours delving into the various facets of the app and probably only read a small percentage of everything that is available. I recommend it as a valuable resource dealing with the evolution of life on Earth. Unlike so many apps, it has been carefully researched, provides authoritative information and is backed by a major museum.

This brings me back to the price. My conclusion

is that the sticker price of \$13.99 should not deter you in the least: this app has as much information as would be contained in a large book that would be vastly more expensive. This is principally a source of information for the interested non-specialist; however it has sufficient detail that if undergraduate students of geology were familiar with its content, they would be well introduced to their palaeontology classes.

You can find out more about this product at www.nhm.ac.uk/business-centre/publishing/index.html

APS Member Dr. Godfrey Nowlan is a Research Scientist and Scientific Outreach Specialist at the Geological Survey of Canada in Calgary. □

Wanted: Fossil Displays and Posters for APS Symposium March 2013

By Mona Marsovsky

Help make **Paleo 2013** a success! We need fossil displays and posters for the APS Symposium on March 16, 2013. The posters and fossil displays will be exhibited at Mount Royal University, near Jenkins Theatre on Saturday March 16, 2013 from 9:00 A.M. to 4:30 P.M.

APS has several wooden cabinets with glass covers in which you can securely display your fossils. Access to these display cabinets is on a first come first served basis, so reserve early with **Doug Shaw**.

The date to remember is **February 15, 2013**. You need to reserve your fossil display cabinet and/or your poster space prior to this date. Contact Doug Shaw, posters@albertapaleo.org or 1-403-556-2438 (long distance from Calgary) to reserve a cabinet for your fossil display or to reserve space for your poster. Send the abstract describing your poster to **Howard Allen** (editor2@albertapaleo.org) **before February 15, 2013**. Guidelines on posters and abstract submission can be found on the APS website (www.albertapaleo.org). **Dan Quinsey** will give a workshop on how to prepare a poster using PowerPoint during the APS meeting on December 14, 2012. □

Fossils in the News

Edited by Howard Allen

Science

August 24, 2012

Dinosaur kingpin opens fossil bonanza to science

PINGYI, CHINA—This article documents the accomplishments of Zheng Xiaoting, a high school dropout and amateur palaeontologist who has amassed a breathtaking collection of fossils and other geological specimens—and has generously opened it all up to scientific study. 59-year-old Zheng started off as a typical Chinese worker, moving through various jobs until eventually landing a position as director of a lucrative gold mine, which left him a rich man. He spent much of his money acquiring fossil specimens, mostly from China, until he controlled one of the largest collections in the world. To house the collection, he constructed and managed the Shandong Tianyu Museum of Nature, inviting scientists from all over the world to make use of the collection. Now retired, Zheng—with many scholarly publications to his credit—spends his days studying the fossils in his collection as well as the anatomy of modern animal specimens.

Calgary Herald

September 23, 2012

New fossil site found at prehistoric Burgess Shale

FIELD, BC—Royal Ontario Museum palaeontologist Jean-Bernard Caron and a team exploring the Canadian Rockies has found what they consider to be a very important new occurrence of Burgess Shale-type fossils, at a “top secret” location in Kootenay National Park, BC. According to a Parks Canada manager, the locality “could be comparable to [the] Walcott Quarry in its importance.” Caron says the newly-found deposit contains “organisms new to science” as well as rare species previously found in the Walcott Quarry. Stay tuned.

Continued on Page 12.

Fundraising Drive for the Philip J. Currie Dinosaur Museum

By Phil Bell, Head Palaeontologist, Pipestone Creek Dinosaur Initiative

As part of the final push to raise the remaining construction funds for the Philip J. Currie Dinosaur Museum in Grande Prairie, the Pipestone Creek Dinosaur Initiative has launched a crowd-fundraising campaign on www.indiegogo.com/curriemuseum. The aim is to raise \$1,000,000 in 120 days. Please check out our profile and consider making a donation. Join our crowd! Every dollar makes a difference and it's super easy. Donors are rewarded with a range of increasingly cool gifts including a museum logo pin, t-shirts, and original artwork by palaeo-art master Julius Csotonyi.

The Philip J. Currie Dinosaur Museum is going to impact this area in a big way. Not only will we all

have an exciting place to take our kids and visitors (and ourselves—when was the last time you saw an *Albertosaurus* skeleton up close?), it will enhance the tourism industry, diversify the economy and create fascinating career options. Children will grow up proud of their fossil-rich “backyard” and full of knowledge on palaeontology and geology.

Help us create our crowd, too. **Please send the link to everyone you know.** The bigger the crowd, the better our chances for success. It's all outlined on the website, so please check it out, spread the word, and help build a world-class museum and research institute.

Many thanks! ☐



Artists' renderings of the proposed Philip J. Currie Dinosaur Museum.

Fossils in the News

(Continued from [Page 10](#))

CTV News online

August 16, 2012

“Most significant” fossils in Nova Scotia found by family walking dog

HALIFAX—Nova Scotians Patrick and Susie Keating, walking their dog along the shore of Northumberland Strait, spotted what looked like “a chicken breast”. It turned out to be the articulated ribcage of a small sail-backed reptile, some 300 million years old (Late Carboniferous). On a return trip they were lucky enough to find the animal’s skull. Patrick’s brother took the fossil to the Nova Scotia Museum, where excited staff proclaimed it the first sail-backed reptile fossil ever found in the province.

Olds College (online press release)

November 9, 2012

Olds College finds remains of ancient reptile

OLDS, ALBERTA—When a slab of sandstone on the Olds College campus was moved for a landscaping project, grounds technician Leona Megli spied what she thought was a dried banana peel on the surface of the slab. A closer look revealed that it was in fact a fossil: the partial skull of an extinct champsosaur, a small crocodile-like aquatic reptile.

College staff reported the find to the Royal Tyrrell Museum. Palaeontologist Dr. Don Brinkman identified the champsosaur as *Simoedosaurus*, one of two genera known to exist during the Paleocene Epoch, approximately 60 million years ago. *Simoedosaurus* is quite rare, only two other specimens having been found in North America (in Saskatchewan and North Dakota). It is also known from European rocks. A CTV News video can be seen by searching <http://calgary.ctvnews.ca> for the keywords “olds fossil”.

Calgary Herald

October 26, 2012

First feathered dinosaur specimens found in West

DRUMHELLER—The first recognized specimens of

feathered dinosaurs in the western hemisphere have been found in Alberta. A team of scientists headed by Drs. Darla Zelenitsky (University of Calgary) and François Therrien (Royal Tyrrell Museum) announced their findings in the journal *Science* [the paper is paywalled, but an abstract can be read here: www.sciencemag.org/content/338/6106/510].

The feathers in question appear as dark streaks on the sandstone matrix surrounding specimens of *Ornithomimus* (ostrich-like dinosaurs) uncovered in Upper Cretaceous rocks near Drumheller and in Dinosaur Provincial Park. The dark streaks were noticed as early as 2008, but initially dismissed in joking terms. The penny dropped that these really were feather impressions when they were compared to known feather impressions from China. A second specimen from the Drumheller area was found in 2009—again with the same dark streaks. This prompted a search of the Museum collection and a third specimen, from Dinosaur Park, was found to have feathers, too.

The specimens, representing two adult animals and a juvenile, are the first examples of feathered ornithomimids. They show that downy feathers were present in both juveniles and adults, and that adults also possessed larger wing-like feathers.

The discovery is also important in showing that feathers can be preserved in sandstone rocks—not just fine-grained mudstones that have preserved feathers in China and Germany—a valuable lesson for preparators who in the past may have unwittingly chiselled away fossil feathers in their eagerness to get at the bones.

Calgary Herald

August 18, 2012

Rare *Triceratops* fossil unearthed at Drumheller.

DRUMHELLER—Former Tyrrell Museum employee Tim Showalter, exploring an undisclosed badlands area east of Drumheller [joining the dots, it’s likely to be the western slope of the Hand Hills], came upon the bones of a *Triceratops*, a rare find for Alberta. A twelve-day excavation unearthed about 30% of the skeleton, in a disarticulated “log jam” of bones. The fossils are now under preparation at the Museum.

[Thanks to Phil Benham, Georgia Hoffman, Vaclav Marsovsky, Dan Quinsey and Reg Spratley for links and clippings—ed.] □

Paleo 2013

The Symposium

Paleo 2013 is a two day event with talks, posters and displays on Saturday, March 16 and workshops on Sunday, March 17. 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

The Alberta Palaeontological Society (APS) invites you to present a poster at Paleo 2013. The symposium will feature presentations from avocational, student and professional palaeontologists from all over western Canada. We are interested in 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.

Instructions for posters and displays

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 16. 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, 2013 (see Page 10 for more details).

Paleo 2013 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 for publication. **Abstracts may be any length:** one page is standard, less than a full page is OK, multi-page abstracts 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 may be reformatted to fit into the volume. The author's mailing address (and email address if you wish) should be included. **Submission deadline is February 15, 2013.** Download guidelines for authors (PDF) from our website, www.albertapaleo.org or contact the Editor (see contact information, below).

Sunday Workshop

A workshop will be offered at Mount Royal University, Room B213. Registration is limited to 20 participants per workshop, so register early! To register, contact **Mona Marsovsky** at (403) 547-0182 or email giftshop@albertapaleo.org. **Registration deadline is March 4, 2013.** Make cheques payable to Alberta Palaeontological Society. Payment may be handed to Mona or mailed to the Society's mailing address at P.O. Box 35111 Sarcee Postal Outlet, Calgary, AB T3E 7C7.

Ammonite Seminar with Wayne Braunberger, M.Sc., P.Geol., Alberta Palaeontological Society. Sunday, March 17, 2013, 9:00 A.M. to 4:00 P.M. with a one-hour lunch break (bring your own lunch). Cost: **\$30.00 per person.**

Ammonoid cephalopods, generally referred to as "ammonites" are one of the most common fossils found in marine sediments deposited within the Western Interior Basin of North America during the Mesozoic. A prolific and diverse group, ammonites are extremely useful in biostratigraphic and palaeogeographic studies.

This day-long seminar will give participants an overview of the methods used to describe, illustrate and identify ammonites:

- What is an ammonite?
- Form and function
- Taxonomic nomenclature
- Preservation
- Descriptive terminology
- Understanding the species description
- Use in biostratigraphy and paleogeography
- Collection, preparation and illustration

Participants are encouraged to bring one or two of their own specimens.

Contact Information

Paleo 2013 Committee Chairperson: Vaclav Marsovsky, (403) 547-0182, membership@albertapaleo.org

Posters & displays: Doug Shaw 1-403-556-2438 (long distance, Olds Alberta), posters@albertapaleo.org

Presentations & Workshops: Mona Marsovsky (403) 547-0182, giftshop@albertapaleo.org

Abstract submissions: Howard Allen (403) 862-3330, editor2@albertapaleo.org

Advertising: Reg Spratley (403) 263-0556, library@albertapaleo.org

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

Alberta Palaeontological Society

Paleo 2013

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 16, 2013, 9:00 AM to 4:30 PM

Workshop—Sunday, March 17, 2013, 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 16 speaker schedule

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

- 9:00 AM** *Opening statement by APS President Wayne Braunberger and symposium instructions by Mona Marsovsky.*
- 9:15 AM** *The perils of Protichnites: The checkered history of an iconic ichnotaxon.*
Robert MacNaughton, Ph.D., Geological Survey of Canada.
- 10:15 AM** Coffee Break.
- 10:30 AM** *Insects and health and safety considerations for field palaeontologists in Alberta.*
Darren Tanke, Royal Tyrrell Museum of Palaeontology.
- 11:00 AM** *Permian fossils around the world.* **Charles M. Henderson, Ph.D., P.Geol., University of Calgary.**
- 11:30 AM** *Climate change and vertebrate evolution in the Permian.* **Jason Pardo, University of Calgary.**
- 12:00 PM** Lunch Break and Poster Displays.
- 1:00 PM** *Trace fossils of the Eocene Green River Formation—Implications for palaeoenvironments.* **Jennifer Scott, Ph.D., Mount Royal University.**
- 1:30 PM** *Late Quaternary mollusc faunas of Alberta and Saskatchewan.* **Lisa Bohach, Ph.D., P.Geol., Stantec Consulting Ltd.**
- 2:00 PM** Poster session and coffee break. Poster presenters are requested to be with their posters.
- 3:00 PM** *Dinosaur biostratigraphy of the Horseshoe Canyon Formation (Upper Cretaceous): Evidence for climatic and evolutionary influences.* **David A. Eberth, Ph.D., Royal Tyrrell Museum of Palaeontology.**
- 3:30 PM** *Canadian trilobites.* **Brian Chatterton, Ph.D., University of Alberta.**