

Alberta

Palaeontological Society Bulletin

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ALBERTA PALAEOLOGICAL SOCIETY

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† Alberta Palaeontological Advisory Committee

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:
 - 1) Discovery
 - 2) Collection
 - 3) Description
 - 4) Education of the general public
 - 5) 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:

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UPCOMING APS MEETINGS

Meetings take place at 7:30 p.m., in Room **B108**,
Mount Royal College: 4825 Richard Road SW, Calgary, Alberta.

Friday, October 21, 2005—APS Open House and Fossil Clinic: Field Trips in Review.
Bring in your finds and photos from the summer field season!

Friday, November 18, 2005—Ossama I.I. Yousif, P.Geol, BDR Consulting Ltd.:
Fossil Fuel is...Just Fossils.

Friday, December 9, 2005—Cory Gross, Alberta Palaeontological Society.
The Grandfather of the Buffalo: Fossils in the Culture and Beliefs of the Nitsitapii.

ON THE COVER: Souvenirs of the APS Paleo Rangers field trip to Canyon Creek, Alberta, July 2005. See story, Page 6. Photos by Dan Quinsey, design by Howard Allen.

Welcome Back!

By Dan Quinsey, President

Welcome back to all our members. I hope everyone had a good, safe summer break.

First, on behalf of the Alberta Palaeontological Society, I would like to let our friends across the border know we are praying for mercy for the victims of Hurricane Katrina, for wisdom in leadership, and for comfort in this time of loss and devastation. You are in our hearts.

The September meeting has been postponed. Instead, members are encouraged to attend a presentation by **Dr. Scott Sampson** of the Utah Museum of Natural History and host of *Dinosaur Planet*. His topic will be “Late Cretaceous Dinosaurs of Madagascar: Implications for Gondwanan Biogeography.” The presentation will take place on Thursday, September 22, 7:30–9:00 P.M. in the Jenkins Theatre, Mount Royal College.

The October 21 General Meeting will be an open house and fossil clinic. The General Public is invited to drop in and visit us at Mount Royal College, room B108 from 7:30–9:30 to view specimens on display and take advantage of resident experts to help identify fossils that are brought into the clinic. Members are strongly encouraged to bring fossils they have acquired over the summer as well as any items they would wish to display. If you have a poster you would like to display as well, you are welcome to bring it along. For more information, contact Dan Quinsey at (403) 247-3022 evenings and weekdays.

Start preparing now! The December Christmas Social will feature a swap meet during the Social Activities. Members are encouraged to bring along any books, resources, palaeontological or related items they have to participate in this activity.

We are still looking for a Social Chairperson. The responsibilities of this position are not demanding. You are expected to come to all the General Meetings and start the coffee prior to the beginning of the meeting and perform a quick clean-up afterwards. As well, you will maintain a list of members volunteering to bring treats to the meetings and remind them of their commitment a few days prior.

Our Bylaws were ratified by Alberta Registries over the summer and with that, you will be contacted for more information if you hold a Family Membership. Please be prompt in providing the information

when you are contacted.

We look forward to seeing you at the presentation in September. □

From the Editor

Bulletin deadlines:
No more Mister Nice Guy

By Howard Allen

By now, many of you may have noticed that the punctuality of the *Bulletin* can be roughly correlated with the price of crude oil: the higher the oil price, the later the publication date of the *Bulletin*. The timing of this issue is a perfect example. As an oilfield consultant, my work takes me out of town for weeks on end and regrettably, when things are busy—as they are now—the *Bulletin* drops down a few lines on my list of priorities. For this, I apologize.

A major factor in my ability to get the *Bulletin* out on time is the deadline, which falls on the 15th of the month prior to publication (it's been posted on Page 1 forever).

Until now, my treatment of the deadline could be compared to making microwave popcorn: You stick the bag in the oven, set the timer for 5 minutes and hit the start button. The instructions say that the popcorn should be done in 3 minutes—the deadline. After only 2 minutes, a few kernels are already popping; these are the fine people who get their *Bulletin* submissions in early. By 3½ minutes (well after the deadline), the popping has reached a crescendo. But you know that if you hold on a little longer, you'll get more pops. After 4 minutes there are only one or two pops per second—should you wait a little longer? Stop now and you'll waste a few kernels; but if you wait too long, the whole bagful may be burnt. Finally, you hit the stop button and hope it's not too late.

For the current issue I was still getting submissions 33 days after the deadline. When I'm busy at work, I get only a few days off between jobs—then it's out of town again for another few weeks. I hope you can see why these relaxed deadlines have got to end. Starting with the December issue, the “deadline” will be “dead serious”: November 15, 24:00 hours. Anything (and I mean *anything*) coming in after that will be left as an “old maid” in the proverbial popcorn bag.

Thanks for your patience, and enjoy the issue! □

Upcoming Talks

**Friday, September 21, 2005, 7:30-9:30 p.m.
Mount Royal College, Room B108**

***Alberta Palaeontological Society Open House
and Fossil Clinic.***

The Alberta Palaeontological Society welcomes CSPG members, families and the general public to their October Open House and Fossil Clinic. APS members and guests will have specimens on display and resident experts will be on hand to help identify fossils that are brought in to the clinic. Fossils found on the summer field trips will also be presented and discussed.

**Friday, November 18, 2005, 7:30 p.m.
Mount Royal College, Room B108.**

Fossil Fuel is... Just Fossils.

**Speaker: Ossama I. I. Yousif, P. Geol.,
BDR Consulting Ltd.**

Petroleum is referred to as “fossil fuel,” (Robley K. Mathews, 1984). Is it a fossil? Generally, a living organism becomes a fossil when it lacks the energy to continue on living, and only a relic is left to indicate it ever existed. Palaeontology deals with fossils; their life span, trophic mode, habitat, bloom and extinction. It is, therefore, questionable wisdom to see the most intelligent of species increasingly depending on fossils for their energy to survive.

In this talk, palaeontological investigative tools are dynamically mobilized to outline the implications of such practice. We will see if fossil finding techniques are applicable to finding more fossil fuels. If we already have found all there is to find, and if nature, in storing all that energy, all these hundreds of millions of years, meant for *Homo sapiens* to spend it all in less than three hundred years. An attempt will be made to locate niche stresses, and if the practice is speeding the living away from or nearer to extinction. Can the process can be reversed, or at least slowed down?

James Hutton laid out the first foundation of dynamic stratigraphy in the phrase: “present is the key to the past.” In this talk, an attempt is made to see if: “past is the key to the future.” Just look at all

that lived before us...

Legend has it that a city-state, for weeks, went on arguing what comes first: the chicken or the egg, while the enemy took the opportunity to conquer the city. If they had only one palaeontologist, the argument would have been settled in a minute, and the city saved. Will it take a palaeontologist today to convince policy makers and economists which comes first: survival or profit?

Biography

Ossama I. I. Yousif is a graduate (M.Sc., Mining Engineer-Geologist) of Gubkin Petrochemical and Gas Industries Institute, Moscow State University, in 1963. He worked in the Middle East and Sudan before moving to Canada in 1972. He is presently the CEO of BDR Consulting Ltd., where he is involved in alternate energy, environment and rewriting of Geology of Petroleum.

**Friday, December 9, 2005, 7:30 P.M.
Mount Royal College, Room B108**

***The Grandfather of the Buffalo: Fossils in the
Culture and Beliefs of the Nitsitapii.***

**Speaker: Cory Gross,
Alberta Palaeontological Society**

Traditionally, the Nitsitapii (Blackfoot) people occupied a territory stretching from the Rocky Mountains to the Great Sand Hills, and from the North Saskatchewan to the Yellowstone Rivers. This territory includes many sites of rich palaeontological significance.

Archaeological finds suggest that the Nitsitapii have been making ritual use of ammonite fossils for over 600 years. Called “iniskim,” or “buffalo stones,” segments of ammonite are included in a variety of sacred bundles and are central to rituals for summoning the buffalo during times of scarcity. Legends place the discovery of the iniskim at a site near the Siksika reserve, well known to fossil collectors.

Early adventurer Jean L'Heureux was the first to record the term “Grandfather of the Buffalo” in connection with dinosaur fossils of present-day Dinosaur Provincial Park. In a modern synthesis, Percy Bullchild associates dinosaur remains with an ancient race of snakes destroyed by Natosi, the Creator Sun.

The presentation will be held in conjunction with a Christmas Social—please bring a snack to be shared.

Biography:

Cory Gross began his post-secondary education studying geology, and is currently finishing a degree in Museum and Heritage Studies. First Nations culture and history is his special academic focus, and this talk summarizes research begun in that program. Having an avid, lifelong interest in palaeontology, Cory has also been a past member of the APS executive. □

Archaeological Society of Alberta, Calgary Centre

Fall/Winter talk schedule

All talks are held at 7:30 P.M., the third Wednesday of every month in Room 114, the ICT Building (Information and Computing Technology), University of Calgary. Talks are free and open to the general public.

Wednesday, October 19, 2005

Speaker: **Don Hanna**

Medicine Wheel Research and Management in the 21st Century.

Wednesday, November 16, 2005

Speaker: **Alan Youell**

Pronghorn Procurement on the Northern Plains: A Case for Small Scale Hunting.

Wednesday, January 18, 2006

Speaker: **Kirsten A. Seaver**

The Norse in Greenland, in Canada and on the Vinland Map.

Wednesday, February 15, 2006

Speaker: **Sheila Greer**

Southern Yukon Ice Patch Archaeological Research, An Update.

Wednesday, March 15, 2006

Speaker: **Rod Heitzmann**

Ground Probing Radar Survey at York Factory National Historic Site, Manitoba.

Wednesday, April 19, 2006

Speaker: **Dan Meyer.**

Excavations at the Upper Lovett Campsite and Other Sites in the West-Central Foothills of Alberta □

Program Summary

Thursday, September 22, 2005

Late Cretaceous Dinosaurs of Madagascar: Implications for Gondwanan Biogeography

Speaker: **Dr Scott Sampson, University of Utah**

Recent palaeontological expeditions to Madagascar have resulted in a number of spectacular, significant discoveries of Late Cretaceous dinosaurs and other vertebrates that are beginning to illuminate the nature of ancient faunas from the island. These fossil finds, which have important implications for the origins of the remarkable and unique extant Malagasy biota, include avian and non-avian dinosaurs, mammals, crocodiles, turtles, snakes, lizards, frogs, and fishes. The dinosaur diversity now includes at least two species of sauropods, two species of non-avian theropods, and three species of birds.

Dinosaurs and other vertebrates have great potential to elucidate issues surrounding fragmentation of the southern supercontinent Gondwana. Until recently, dinosaur faunas of the southern hemisphere were poorly known, but a number of ongoing field projects have begun to fill this gap. Despite the proximity of Africa and Madagascar, the new Cretaceous finds from the Red Island appear to share greatest evolutionary similarities with coeval faunas from India and South America. Thus, in contrast to most geophysical models, which suggest that all post-Gondwanan landmasses were separated by 100 Ma ago, we have postulated that: 1) Africa was the first Gondwanan landmass to become isolated; and 2) Indo-Madagascar was linked to South America via intervening Antarctica until about 80 Ma. This controversial plate tectonic and biogeographic hypothesis has been challenged, resulting in a lively debate.

Biography

Scott Sampson is a Canadian palaeontologist who received his Ph.D. in Zoology from the University of Toronto in 1993. His doctoral dissertation examined the evolution of horned dinosaurs from western North America. As part of this project, he named

and described two new and rather bizarre species from Montana, *Einosaurus procurvicornis* and *Achelousaurus horneri*, one of which has been featured on a US postage stamp. After a year working at the American Museum of Natural History in New York City, Sampson spent five years as Assistant professor of Anatomy at the New York College of Osteopathic Medicine on Long Island. He came to the University of Utah in 1999, where he serves as Chief Curator and Curator of Vertebrate Paleontology at the Utah Museum of Natural History, as well as Associate Professor in the Department of Geology and Geophysics.



Majungatholus atopus skull from Madagascar, Late Cretaceous. Photo reproduced by permission of Scott Sampson.

Sampson has conducted palaeontological fieldwork in a number of countries, including Kenya, Zimbabwe, South Africa, Mexico, and Madagascar, as well as the United States and Canada. In particular, several field seasons on the island of Madagascar have resulted in a great number of well-preserved dinosaur specimens, with several new species. The most recent addition is a small-bodied, buck-toothed carnivorous dinosaur (theropod) dubbed *Masiakasaurus knopfleri*. Since arriving in Utah, Sampson has initiated several field projects within the state. Foremost among these has been a large scale effort in Grand Staircase-Escalante National Monument, southern Utah, which has produced remains of several previously unknown dinosaur species that are currently under study. Sampson has published numerous scientific and popular articles on dinosaurs, and he is now working on a book for University of California Press addressing the role of dinosaurs in the web of life. He is also the on-air host of a four-part documentary series on the Discovery Channel called *Dinosaur Planet*. □

Books Donated by Michael Webb

By Mona Marsovsky, APS Librarian

APS member **Michael Webb** donated books from his collection to the APS library on March 19, 2005. The APS membership would like to thank Michael for his generous donation of the following books:

1. Gilmore, C.W. 1928. Fossil Lizards of North America. *Memoirs of the National Academy of Sciences*, Vol XXII, 3rd Memoir, Washington DC. Reprinted 1978, Riverside Museum Press.
2. Grande, L. and Bemis, W.E. 1998. A Comprehensive Phylogenetic Study of Amiid Fishes (Amiidae) Based on Comparative Skeletal Anatomy: An Empirical Search for Interconnected Patterns of Natural History. *Society of Vertebrate Paleontology, Memoir 4, Supplement to Journal of Vertebrate Paleontology*, Vol. 18, No. 1, April 10, 1998.
3. Flanagan, K.M. and Lillegraven, J.A. (eds.). 1986. *Vertebrates: Phylogeny and Philosophy*. Special Paper 3, *Contributions to Geology*, The University of Wyoming.
4. Nadachowski, A. and Werdelin, L. (eds.). 1994. *Neogene and Quaternary Mammals of the Palaearctic*. ACTA Zoologica Cracaviensia, Incorporating the Proceedings of the International Conference, Krakow Poland, May 17–21, 1994.
5. Mayr, E. 1982. *The Growth of Biological Thought—Diversity, Evolution and Inheritance*. Belknap Press, Harvard University Press, Cambridge Massachusetts.
6. Rudwick, M.J.S. 1976. *The Meanings of Fossils: Episodes in the History of Palaeontology*. University of Chicago Press.
7. Maddison, W.P. and Maddison, D.R. 1992. Excerpts from *MacClade Analysis of Phylogeny and Character Evolution*, Version 3.0, Chapters 3–6. Sinauer Associates Inc., Sunderland, Massachusetts.
8. Hanken, J. and Hall, B.K. (eds.). 1993. *The Skull*, Vol. 2: *Patterns of Structural and Systematic Diversity*. University of Chicago Press.
9. Hanken, J. and Hall, B.K. (eds.). 1993. *The Skull*, Vol. 3: *Functional and Evolutionary Mechanisms*. University of Chicago Press.
10. Drake, E.T. and Jordan, W.M. (eds.). 1985. *Geologists and Ideas: A History of North American Geology*. Geological Society of America, Centennial Special Volume 1. □

Paleo Rangers Field Trip

2005-1: Canyon Creek

By Dan Quinsey and Ron Fortier

The Paleo Rangers field trip to Canyon Creek on Saturday, July 23 was a huge success. Including leaders **Dan Quinsey** and **Ron Fortier**, we had a total of 8 adults (guardians) and 9 Paleo Rangers ranging in age from 7 to 12. It was a sunny day in the mid 20s—perfect for fossil collecting.

On Saturday morning, everyone assembled at the south end of the parking lot at Anderson LRT station in Calgary, where they were oriented and given their field trip guides and a brochure, *The Bear Facts*.

From there, we drove to Canyon Creek. **Mike Thompson** at Sustainable Resources arranged for us to have access through the gate, to drive up to the ice caves where we parked and hiked to our first stop.

Stop #1 was the Exshaw Formation, where everyone collected brachiopods (*Plicochonetes*), worm burrows (*Palaeophycus* and *Helminthopsis*), and crinoid stems. Along the way, we also collected corals (*Syringopora*) from the river bed. After we assembled back at our vehicles, we had a small briefing to document our stop and finds. This would be done for each of the following stops as well. Everyone broke for lunch after the first stop.

Stop #2 was the Banff/Pekisko contact, where everyone was shown the two formations on the east side of the road and the two formations with the fault line on the west side of the road. Here, we also collected crinoidal packstone.

Stop #3 was the Shunda and Turner Valley formations, where everyone collected rhizoliths. Some participants also found some gastropod impressions.

Stop #4 was the Mount Head Formation where we explored the lycopods discovered by APS member Les Adler in the spring of 1995. Since the flooding earlier this year, this site has been washed even more and has exposed more lycopods. A possible identification of the lycopod is *Lepidodendron*. Nothing was collected at this site, but participants took many pictures.

Stop #5 was the Fernie Formation, Poker Chip Shale. Participants found some pyrite and calcite along the river bed on the way to this site. Here, participants found many ammonite impressions of *Harpoceras* and *Dactylioceras* in the black shales. A little further down the creek bed we also found ammonite impressions in the white shales, approximately 2.5 m above the creek bed; however, these specimens were very brittle and almost impossible to collect.

The day ended with a wrap-up of the trip. Everyone had collected at least one or more of each of the fossils mentioned from each site and both Paleo Rangers and their guardians were very happy with the results. The question most asked at the end of the day was, “When is the next event going to be scheduled?”

Many thanks go out to APS members involved in organizing this trip. We have set a precedent that will be a thrill to continue during the years to come. □

2005 Field Trip Review

Tentative plans for 2006

By Wayne Braunberger

This year has not been a stellar one for field trips. Manyberries was cancelled due to weather, Crowsnest was partially rained out on the Saturday, and Ghost was cancelled due to lack of participation. One more trip is planned for later this year: October 1 & 2, 2005—Fort Steele Trilobite Beds. (The registration deadline will have passed by time this issue goes to press; the trip was announced in the June *Bulletin*.)

Planning is already underway for next year's trips. The tentative schedule is:

June 3–11, 2006: Hay River, NWT

The field trip will be held from Monday, June 5 through Friday, June 9 with the weekends being travel days. At least one day will be spent at the Pine Point lead-zinc mine. Participants will be responsible for their own transportation, accommodation, and meals.

(continues...)

June 17–18, 2006: Tolman Bridge, Alberta.

Tolman Bridge was the site of the first field trip held by the Alberta Palaeontological Society. Sites to be visited are along the Red Deer River between Tolman Bridge and Dry Island Park. To commemorate the 20th Anniversary of the Society's field trips, a special event is planned for the Saturday night.

June or July, 2006: Paleo Rangers trip, Alberta.

Trip to be announced. This will be a one-day children's trip most likely planned toward the end of June or the beginning of July.

July 15–16, 2006: Manyberries, Alberta

With some minor changes (depending on site access) the trip that was cancelled will be held.

August 19–20, 2006: Location to be announced.

Any suggestions would be appreciated.

I would like to thank **Dan Quinsey** and **Ron Fortier** for organizing and leading the children's field trip in July. Ron has also assisted in researching campgrounds for the trips. For next year I would like to have more members involved in the organizing of the field trips and would like to see some members lead trips rather than the Field Trip Coordinator.

Those of you on trips this year will have noticed new waiver and medical forms. If you have suggestions for improvements please let me know.

Starting with the October trip, medical forms will be required without exception. If you require medical attention the information on the form will be given to the attending medical personnel in order that they may give you the best care possible. This information is particularly relevant if you are in any way incapacitated and cannot communicate. □

Fossils in the News

The Calgary Herald, June 3, 2005

Scientists solve *T. rex* sex mystery

MONTANA—Dr. Mary Schweitzer's research team, working on a *Tyrannosaurus rex* skeleton from Montana (the same specimen that produced alleged soft tissue remains: see *Bulletin*, June 2005, p. 18) has uncovered evidence that could help determine the sex of some dinosaur fossils. Examining thin sections from the leg bone of the *T. rex* specimen,

the researchers noted a layer of special tissue, called medullary bone inside the leg. In birds, medullary bone provides egg-laying females with a quick source of calcium for the production of egg shells.

The discovery, if confirmed, would provide a sure means of sexing dinosaur bones, but only in certain circumstances: medullary bone in birds only occurs in females, and only while they are ovulating; thus, its presence would logically confirm a female animal, but its absence would *not* confirm a male animal. The find also offers strong support to the birds-as-dinosaurs theory.

CBC News Online, June 13, 2005

2000-year-old palm seed germinates

ISRAEL—A palm seed recovered from an Israeli archaeological excavation at Masada (site of a Jewish mass suicide in the face of a Roman siege in AD 73) has sprouted in the laboratory and produced a healthy sapling after 2000 years of dormancy. This is touted as being the oldest seed ever germinated, beating out a 1200-year-old Chinese lotus seed.

[APS member and author, **Phil Benham**, writes in an excerpt from his upcoming book:

“A miner by the name of Harold Schmidt uncovered a series of burrows in the frozen muck of Miller Creek [Yukon] in 1954. The burrows contained skeletons of collared lemmings (*Dicrostonyx torquatus*) and food stores that included 20 seeds from arctic lupines (*Lupinus arcticus*). He collected the seeds and put them away for twelve years. In 1967, Dick Harington and Erling Porsild (Canadian Museum of Man and Nature) decided to see if the seeds were still viable. These seeds are thought to be more than 10,000 years old, and yet, in the laboratory germinated within two days of the judicious application of light and water. One of the plants even ended up flowering. The previous record for germination of ancient seeds was the 2000 years old sacred lotus (*Nelumbium nuciferum*).

From other sites in the vicinity of Sixtymile the vegetative material in the frozen stomachs of mammoth, bison and other large mammals tell us a lot about their diets and the terrain they lived on.”

Phil notes that the 10,000-year-old age of the lupine seeds has not been proven scientifically. – ed.]

National Post, June 23, 2005

Fossil proves evolution of venomous mammals

EDMONTON—The teeth and jaws of an extinct, mouse-sized mammal, found near Red Deer, are the first fossil evidence that some mammals used venom to subdue their prey, in the manner of snakes. *Bisonalveus browni*, a species first discovered in Wyoming in the 1950s, was not recognized for its unique attributes until the more complete Alberta specimen was studied.

The Alberta fossil was found in 1991 on the Blindman River, north of Red Deer, in 60-million-year-old rocks of the Paskapoo Formation. University of Alberta technician Yongqin Sun, preparing the specimen in 2004, noted a deep groove along the length of an upper canine tooth. Her supervisor Dr. Richard Fox immediately recognized the significance of the groove as part of a probable venom-delivery system that the animal would have used to poison its prey. In the modern world, only a few shrews and the solenodon use venom—delivered by incisor teeth on their lower jaws—to paralyze insect prey.

Dr. Fox and student Craig Scott published a paper on the discovery in the June 22, 2005 issue of *Nature*.

Science, June 24, 2005

Early tree had palm-like form

CONESVILLE, New York—A remarkably complete fossil of an early “tree” has been uncovered in a New York state gravel quarry. The specimen is exciting researchers because of its age—Devonian (380 MY old)—and its preservation. The 3 m long fossil, preserved on a slab, shows a spray of frond-like branches (not true leaves) atop a trunk. The plant, belonging to the genus *Pseudosporochnus*, was previously known only from smaller fragments. It was reported by researcher Ed Landing at the North American Paleontology Conference in Halifax, in June.

CNN.com, July 5, 2005

Human footprints in Mexico 40,000 years old

MEXICO—British researchers have found human footprints in a lithified volcanic ash bed dated to 40,000 years BP. The tracks were uncovered in a quarry near Puebla, central Mexico. This is another blow to the long-standing theory that humans first entered North America across an Alaskan land

bridge no earlier than about 13,500 years BP. The researchers believe it's more likely that the first people arrived by boat along the west coast—probably in several waves—and moved inland from there.

CNN.com, July 6, 2005

Dino footprint found in Alaska

DENALI NATIONAL PARK, Alaska—Geology student Susi Tomsich spotted something out of the ordinary while taking part in her University of Alaska field school. Peering under a ledge, she saw the impression of a three-toed foot, 23 cm long by 15 cm wide. Her instructor confirmed that it was made by a small theropod dinosaur, some 70 million years ago. The main significance of the find was its location in the Alaskan interior, far from previous finds closer to the coasts.

The Globe and Mail, July 29, 2005

Egg-citing discovery simply evolutionary

SOUTH AFRICA—Researchers are thrilled with the discovery of six embryo-bearing dinosaur eggs recovered from Early Jurassic rocks in South Africa in 1978, and only brought to light in the last year. Robert Reisz, of the University of Toronto is a member of the international team studying the find. Using microscopes and delicate tools, the team have slowly uncovered the tiny, exquisitely-preserved embryo skeletons, revealing them to be offspring of the bipedal herbivore, *Massospondylus*.

Anatomical features of the skeletons reveal some interesting facts. The embryos, which Dr. Reisz says were “clearly ready to hatch,” had no well-developed teeth, leading to speculation that they would have had to be fed and cared-for by their parents. However, Dr. Anthony Russell, of the University of Calgary, cautions that the toothless condition may only mean that the young hatchlings had a different diet than their parents. The relative proportions of the embryos' limb bones also reveal that they would have run around on all fours upon hatching, whereas their parents are known to have been bipedal. This is seen to be evidence of “paedomorphosis,” an evolutionary pattern in which descendants—in this case, the massive quadrupedal sauropods of later Jurassic time—evolve adult features found only in the young of their ancestors. □

[Thanks to Phil Benham and Georgia Hoffman –ed.]



ALBERTA PALAEOLOGICAL SOCIETY OPEN HOUSE



FREE ADMISSION

FRIDAY OCTOBER 21, 2005, 7:30 P.M. – 9:30 P.M.
MOUNT ROYAL COLLEGE, 4825 RICHARD ROAD SW, ROOM B108

OPEN HOUSE ACTIVITIES

RESEARCH POSTERS • FOSSIL DISPLAYS • FOSSIL IDENTIFICATION • SILENT AUCTION

You are invited to drop in and visit the Alberta Palaeontological Society
Friday, October 21, 2005. at Mount Royal College, Room B108.

A sampling of research posters will be on display
as well as fossils collected by members during the summer.

Fossils from private collections will also be on display.

You are strongly encouraged to bring along any fossils you have for identification.
Our resident experts will also be on hand to answer any questions you may have.

Anyone attending is welcome to take part in our Silent Table Auction.

Items up for auction usually sell for under \$10.00, however
we have been known to put out a few surprises worthy of a few dollars more.

www.albertapaleo.org

Map of the lower level of Mount Royal College

Room B108 is located by the East Gate Entrance
Indicated by the red pointer on the map.

When entering by the East Gate Entrance
revolving door, B108 is located just down
the first hallway to your right.

When entering by the West Gate Entrance
revolving door, B108 is located at the
opposite end of the building
on the lower level. Use the elevator
or main staircase and proceed
to the East Gate Entrance revolving door.

B108 is located just down the
hallway on your left just before the
revolving door.

