



ALBERTA PALAEOLOGICAL
SOCIETY

BULLETIN

VOLUME 4, NUMBER 1

MARCH, 1989

ALBERTA PALAEOLOGICAL SOCIETY

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	Director at Large	Dr. David Mundy	281-3668

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

- A. Promote the science of palaeontology through study and education
- B. Make contributions to the science by:
 - 1) Discovery
 - 2) Collection
 - 3) Description
 - 4) Education of the general public
 - 5) Preserve material for study and the future
- C. Provide information and expertise to other collectors
- D. Work with professionals at museums and universities to add to the palaeontological collections of the Province (preserve Alberta's heritage)

MEMBERSHIP: Any person with a sincere interest in palaeontology is eligible to present their application for membership in the Society

Single membership	\$10.00 annually
Family or institution	\$15.00 annually

THE BULLETIN WILL BE PUBLISHED QUARTERLY: March 1, June 1, September 1, and December 1, annually

DEADLINE FOR SUBMITTING MATERIAL FOR PUBLICATION IS THE 15th OF THE MONTH PRIOR TO PUBLICATION

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BULLETIN BACK ISSUES: Back issues of the Bulletin are available at \$2.00 per copy. A limited number are available.

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.

PRESIDENT'S MESSAGE

Donald Sabo

As your newly elected President, I would like to take this opportunity to congratulate and thank our Past President: Wayne Braunberger for doing a splendid job in organizing and operating the Society for the last three years.

Wayne has contributed a great deal to our Society: by writing a number of articles for the Bulletin and being a key person in it's organization, designing and organizing the production of the Society pin, and chairing the regular meetings such that they have proceeded smoothly and are interesting to attend. He is also the representative for amateur palaeontologists on the Alberta Palaeontological Advisory Committee. As well he participates in many other key functions. I look forward to working with Wayne and referring to his experience and knowledge in his new position as "Past President".

The previous executive was able to bring together a group of enthusiastic people with a common love for palaeontology. It produced an organization which has been able to generate a quality quarterly Bulletin written by the membership, hold organized Field Trips, and exchange ideas and knowledge, as well as being educated by interesting and informative guest speakers.

I am very pleased to have this opportunity to represent your Society in the capacity of President, and with the help of an eager and enthusiastic executive, will continue to operate with the high standard of quality as in the past. I think that as a Society we should make a concerted effort this year at increasing our membership by advertising through posters, pamphlets or whatever means we think suitable. I also encourage members to come forward with any new ideas or suggestions which may help to keep the Society interesting for all of us to enjoy.

ADVERTISING

Advertising will be accepted in the Bulletin. The following rates will apply:

1/8 page	\$5.00
1/4 page	\$10.00
1/2 page	\$15.00
full page	\$20.00

All material must be received ready to print. If it is not, charges will be assessed for layout, set-up etc. There will be a 20% discount to members of the Society. Advertisements of fossils for sale or trade will not be accepted.

FRONT COVER

This month's cover is from the computer of Jeff Doten. We thank Jeff for his contributions and look forward to more of his artwork.

FIELD TRIPS FOR 1989

Harvey Negrich

Our field trip season will soon be here and again we plan three trips. These will be in June, July, and August.

If rained out we may cancel our planned trip and it will be tried later, not necessarily on the next weekend. We plan on going on these trips even if there is a lack of interest shown. I feel that the trip should go even if only the resource person is going.

Bring along a lunch and drinks as some of our ventures do not allow us to break away at noon. Staying together helps us keep a better contact with our group. Dress accordingly, as we can at times find cool spots.

TRIP 89-1: June 24-25, 1989. Drumheller Area, Alberta
Resource People: Dr. Dave Mundy (403) 281-3668
Percy Strong (403) 242-4735
Wayne Braunberger (403) 278-5154

We will be looking at depositional environments and stratigraphy with associated fauna at several stops. These stops will start with the Bearpaw Formation in the East Coulee area and progress upwards to the Kneehills Tuff west of Drumheller.

TRIP 89-2: July 22, 1989. Canyon Creek Area, Alberta
Resource Person: Dr. Dave Mundy (403) 281-3668, and assistants

This trip will attempt to explain the steps taken to measure a section and study the stratigraphy of the Lower Carboniferous sedimentary rocks in the vicinity of the Ice Caves. We plan on identifying the fauna collected from this trip and ask that participants consider this as a group effort. If one wishes to collect only, he may come along and we will offer advice as to where to collect.

TRIP 89-3, August 19-20, 1989. Medicine Hat Area, Alberta
Resource Person: Hope Johnson (403) 548-6450

This trip is more for the pleasure of looking in a different area than most of us have been familiar with. The locations will be Cretaceous, starting with the Milk River Formation if we get that far south. We may also get into the Oligocene Cypress Hills Formation.

If you are interested in any of our trips and wish to register you may do so by contacting Harvey Negrich (403) 249-4497 or anyone on the executive. We will have a list at our regular meeting and anyone there will be able to signify their interest at that time. A few days prior to each trip someone will attempt to contact all those registered to pass along any last minute details or changes and the meeting locality in the area. This last minute contact will be important, as changes may be made to plans. Do not attend a field trip without first checking for any such changes.

Again our motto is keep in touch.

ARTICLE REVIEWS

Les Adler

GO! GO! GO! AT GOGO! New Scientist, November 19, 1988, Vol.120, No. 1639, pages 40-44. by: John Long, Geological Research Fellow, University of Tasmania, Hobart, Australia

New Scientist is a weekly publication from the United Kingdom. As yet there is no American edition and it comes by airmail at \$4 per copy. Half the magazine features jobs available for scientists in the U.K. and sometimes jobs in Australia and the Middle East. The other half features lead articles on current topics such as the green-house effect plus short reports on the week's happenings of interest to scientists. At various intervals there are reports of interests to palaeontologists.

In 1986 the National Geographical Society sponsored a palaeontological expedition to the Gogo cattle station of some 1.2 million hectares, east of the Fitzroy Crossing in the Kimberley district of north-western Australia. Harry Toombs developed a technique of using acetic acid in the 1940's for the superbly preserved three dimensional fossils from this location. There are thousands of limestone concretions with important Devonian fossils. There was also an expedition in 1963 and further expeditions are needed in the future to see if more missing links can be located. The fossils are exquisitely preserved because limestone built up around the fish quickly cushioning them against compaction. There are a large number (about 40) species of fishes including placoderms (extinct jawed armoured fishes), ray-finned fishes, lungfishes, and also many crustaceans. At other locations the preparation methods used caused the scientists years to work out relationships. Here, scientists quickly see the possible path of evolution of fishes to tetrapods.

The article explains the preparation method used and relates the finds to recent finds in Antarctica and Australia and then to the classic finds in Scotland, East Greenland, Europe, Texas, and Quebec. Alternate evolutionary paths are shown. The step from water to land was the most significant stage in vertebrate history. Human beings are merely a highly derived sub-group of osteolepiform fishes, our Devonian ancestors, which resulted from a progression up the evolutionary ladder. The article is well illustrated and provides a discussion of fossil fish relationships.

LIFE AFTER DEATH Maclean's Science, December 5, 1988 Vol.101, No. 50, pages 51-60. Contributors: Ric Dolphin, Larry Black, Barbara Wade Rose, and Jeremy Hart

The article is in 3 sections. The first section deals with current shows, the second with theories as to whether the dinosaurs were cold-blooded or hot-blooded, while the third section discusses theories as to why the dinosaurs became extinct.

The Royal Ontario Museum (ROM) in Toronto has an exhibition of motorized, mechanical dinosaurs along with the paintings and sculptures that appeared previously at the Tyrrell Museum. Media attention such as this section being reviewed has contributed to large attendances at the ROM, Tyrrell Museum and the Los Angeles Museum of Natural History. During the last ten years about 150 new

species of dinosaurs have been described to add to the 150 species described during the previous 120 years. The public are buying hundreds of millions of dollars worth of dinosaur mementos and are now visiting movie houses (including Calgary and Edmonton) to see "The Land Before Time", an animated dinosaur movie directed by Don Bluth in the tradition of "The Incredible Journey".

In one section the Tyrrell Museum, Dr. Philip Currie, Dr. E. Colbert, Dr. Robert Bakker, and the current joint Canadian-Chinese dinosaur expeditions are featured. Then Dr. Loris Russell (84), of Ottawa, a quiet-spoken gentleman is contrasted with the charismatic Dr. Robert Bakker (43), Of Boulder, Colorado whose television appearances feature dinosaurs.

Important Cretaceous-Tertiary boundary locations occur in Alberta. Apparently dinosaur remains are not found above the boundary. Many scientists claim that the cause or causes of the dinosaur extinction are catastrophic. In the 1950's Soviet scientists advanced a theory that cosmic rays from an exploding star damaged the dinosaurs' reproductive tissues. An American biochemist claimed that vegetation produced more oxygen than dinosaurs could absorb. The National Enquirer blamed the extinction on big game hunters from another planet. Another theory claimed that dinosaurs became large while their brains stayed small. Consequently mammals stole the eggs and birth-controlled the dinosaurs out of existence. The Alvarezes theorized that a huge dust cloud from an asteroid collision blocked out sunlight. Other scientists suggest that a series of comets hit Earth. Another theory suggests that mass volcanic activity affected the tectonic plates.

However, Dr. Phil Currie and another group of scientists suggest that the dinosaurs were dying out throughout the middle and late Cretaceous time interval and that it is the scientists who have made the extinction abrupt.

LIBRARY

The following publications are missing from the library. If you have any in your possession could you please return them.

Giant Reptiles Invade The Plains
 Panoplosaurus mirus, Armoured Dinosaur, Belly River, Alta, 1919
 Bibliography of Geology, Alta, BC, NWT
 Index: Bulletin of Canadian Petroleum Geology 1953-62
 Paleontological Field Guide, S.J. Nelson, CSPG
 Bibliography of Geology, ASPG, 1945-1955
 Palaeontology of the Swan Hills Area, North Central Alta, ROM

**Names and contact information removed
to protect members' privacy.**

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to protect members' privacy.**

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