

ALBERTA

PALAEOLOGICAL

SOCIETY

BULLETIN

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ALBERTA PALAEOLOGICAL SOCIETY

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The Society was incorporated in 1986, 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, curation, and display
 - 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

OUR 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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PRESIDENT'S MESSAGE

Wayne F. Braunberger

Once again the summer is almost over. It seems as though it goes by faster each year. The weather this year has not been the greatest but if you're like me you will have made the best of it and managed to get out of doors as much as possible.

In one of my more reflective moments, I gave some thought as to why I collect and what will be the ultimate disposal of my collection. Like many of us, I started collecting as a child and did not outgrow the habit. I am able to combine all my interests into one avocation. What I collect is generally of an educational nature and most of the specimens would never make it as museum display material. I consider the collecting of fossils a learning experience and am attempting to share my interest with others.

But what will happen to all this material long after I'm gone? When I'm gone, my heirs will clean up after me and, unless they have an interest, will haul it all to the dump. "Not so!" you say, but it has happened. I'm aware of one case where a collector had died and no one else in his family was interested so the material was thrown out. Luckily, it was rescued from becoming part of a landfill. The fossils could all be identified, and some speculation was made as to the locality.

This example brought home to me the importance of doing two things:

- 1) Always note the location of the fossil you collect, and
- 2) Have a plan for the disposal of your collection.

A name can always be found for a fossil but if the location is not noted, it can never be relocated at a later date. So, always try to note the location of your fossil finds as accurately as possible. What do you do with your fossil collection if no one in your family wants it? Some suggestions I have are:

- 1) Contact your local museum or university/college to see if they could use the material. Specimens are always required for teaching and study. You may also have scientifically valuable material in your collection that would be of great use.
- 2) You may consider donating your collection to the local palaeontology society. Many will appreciate the opportunity to use the specimens for education and display purposes. Although it is something we do not think about very much, I'm sure you'll rest easier knowing that your collection will be taken care of after your time has come.

In the last Bulletin, I put forth some ideas about how Alberta's Bill 11 may have come about and some of the possible consequences. Since then, I have received a letter from Dr. W.J. Byrne, an Assistant Deputy Minister in Alberta Culture. Dr. Byrne has presented some information which will aid in explaining the purpose of Bill 11. Dr. Byrne's letter has been reprinted in the Bulletin so that all members may have this information.



CULTURE
Historical Resources

Office of the Assistant Deputy Minister

Old St. Stephen's College, 8820 - 112 Street, Edmonton, Alberta, Canada T6G 2P8 403/431-2300

July 10, 1987

Mr. Wayne F. Braunberger
Alberta Palaeontological Society
Box 7371, Station "E"
Calgary, Alberta
T3C 3M2

Dear Mr. Braunberger:

Your letter in the Alberta Palaeontological Society Bulletin of June 1987 poses a number of interpretations of Bill 11 that I believe are at variance with the actual purposes for the legislative reform.

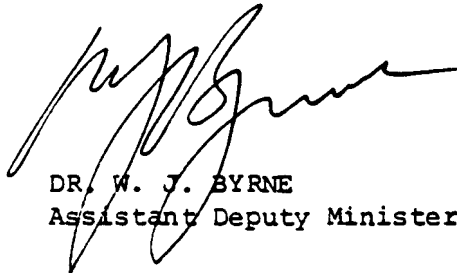
First, let me stress that from Alberta Culture and Multiculturalism's perspective the amendments provide no new powers to the Minister, but rather simply are a clarification of his abilities which are already generally contained in the Act. Indeed, it has been suggested that the specific articulation of his responsibility actually limits his power from the earlier broad control of the resource base. The change was made largely to deal with an aspect of resource management that had not been specifically dealt with in Alberta's original heritage legislation, disposition to private owners. Rather, in the past we were concerned only about preserving materials for scientific purposes. In this regard it must be fully understood that the amendment in no way lessens our control over important palaeontological resources and the preservation of the resource base. Furthermore, in our efforts to get a better handle on the commercial angle, this Department has been in negotiations with the Department of Energy to ensure that not only our present permit controls for excavation and export remain in place, but also that the same controls that apply to other types of mineral exploitation through the Department of Energy will also apply to any excavations authorized for private purposes.

You were quite correct in stating that Alberta does have some of the most comprehensive palaeontological resource controls found internationally. At the same time it must be acknowledged that there are a few - a very few - types of specimens that have been found in such abundance and condition that they have so little scientific value that a regulated disposition is permissible. It is our position that ammolite, the gemstone material derived from restructured and crystalized ammolite shell, is such a material. As I am sure you are well aware, the primary bed in which ammolite is currently being found runs from Magrath to Bassano.

Attached is a copy of Bill 11 which has now been passed as law. We are also currently drafting attendant regulations that better articulate the intention and application of the new amendments. Please be assured that Alberta Culture and Multiculturalism, as demonstrated by the development of the Tyrrell Museum, its Field Station, and these amendments, firmly intends to strengthen its international leadership role in palaeontological resource matters, not compromise this hard fought position. Your sincere interest in protecting the resource base is greatly appreciated and hopefully this explanation will allay some of your concerns. Please feel free to convey this information to others in the Society, and call me if you have any further questions.

WJB/eks
Encl.
c.c. E. H. Koster

Yours sincerely,



DR. W. J. BYRNE
Assistant Deputy Minister

PROGRAMS

Don Sabo

The program for the September meeting is to consist of two or three mini presentations of ten to fifteen minutes each. October's program will be a group participation evening where all members are urged to bring along a specimen or specimens to say a few words on, or to have help from the other members with identification. Tentatively, the November program will feature Dr. W. Byrne, the Assistant Deputy Minister for Alberta Culture who has agreed to talk to us on Bill 11 and the proposed changes to the Alberta Historical Resources Act.

Volunteers are still needed for future programs, so if you have any suggestions or would like to present a program, please contact Don Sabo at 238-1190.

EDUCATION

The three final workshops for this year will once again be held in the Rock Lab at Mount Royal College. Jonathan Greggs from the Geology Department is the instructor and he is open to suggestions on topics that you would like to discuss. These workshops are tentatively scheduled for the first Friday of October, November and December, from 7:00 pm to 10:00 pm and are \$5.00 per evening. For further information, contact Don Sabo at 238-1190.

**FIELD TRIP NO. 1
RED DEER AREA FIELD TRIP**

Wayne Braunberger

On June 20 and 21, 1987, twelve members of the Society travelled to Red Deer, Alberta to learn more about Paleocene plants of the Paskapoo Formation. Our guide for the two days was Mrs. Betty Spiers of Red Deer. Mrs. Spiers has been excavating two sites in the Red Deer area under an Alberta Culture permit, in co-operation with the University of Alberta.

On Saturday, June 20, we met at Mrs. Spiers' home and were given a brief introduction to the numerous species of plants that are found. These sites are also noted for vertebrate remains, mostly mammals, although reptiles and amphibians have been found. Some insect remains have also been recovered. At one site, a distinct fish horizon is exposed.

After this introduction, we then traveled east of Red Deer to the Joffre Bridge site. This site is on the west side of the Red Deer River, about half to three fourths up the bank. Although fossils have been known from the vicinity of Joffre Bridge since discoveries by Barnum Brown in 1914, it was not until the recent work by Mrs. Spiers that new discoveries were made. The exposure we visited was discovered by Mrs. Spiers during the reconstruction of the road a few years ago. This site has produced numerous species of plants, as well as several mammal jaws and one nearly complete mammal skeleton. Above the plant horizon is a layer of fish. The fish layer is currently being excavated by a team from the University of Alberta. An interesting day was spent here and except for a short thunder shower was quite enjoyable.

Later on Saturday evening, we again met at Mrs. Spiers' home for more fine conversation and to view more of the specimens that she has collected. After our day in the field, we were all more knowledgeable and benefited greatly from the evening.

On Sunday, June 21, we again met at Mrs. Spiers' home for a few minutes and then set off for the Burbank locality. This site is north of Red Deer at the junction of the Blindman and Red Deer rivers. Fossil plants were first discovered at this locality by T.C. Weston in 1889. Several species of plants are known from this location. Some insect, mammal, amphibian and reptile remains have also been found in the area. The location we visited presents difficult accessibility as it is along the shore of the Blindman River. During periods of high water, this location is inaccessible. Another enjoyable day was spent here with no thunder showers to interrupt.

Mrs. Spiers is to be commended for her efforts. Without her dedication our knowledge of Paleocene flora and fauna in Alberta would be sadly impoverished. Those of us who attended thank Mrs. Spiers for taking the time to share with us the fascinating discoveries she has made.

**FIELD TRIP NO 2
DINOSAUR PROVINCIAL PARK**

Don Sabo

The second field trip of the 1987 collecting season was held August 22 and 23 at Dinosaur Provincial Park, northeast of Brooks, Alberta. There were fourteen members and guests present, most of whom camped over Friday and Saturday nights in the provincial campground.

The weather was great, being sunny and hot, providing a welcome change from the previous rainy week.

Through the capable hands of Harvey Negrich, bus tours and collecting hikes were organized.

By midmorning our group was touring through the new Field Station and Museum. We all were very impressed by the variety of interesting and well displayed exhibits, which demonstrate the diversity of dinosaur skeletons and associated fauna found within the Judith River Formation of the Upper Cretaceous (Campanian) time period. The staff from the Tyrrell Museum have once again outdone themselves.

Before noon we were on our way with a guided bus tour through the restricted area of the park and were able to view hoodoos, camel and pyramid like rock formations, dinosaur bones and an exposed Hadrosaur skeleton that was housed for display.

After a relaxing lunch, we continued with a group collecting hike through the unrestricted area adjacent to the campground. Some members found identifiable fossils which were turned in at the Field Station, and during the evening program at the park amphitheatre received Fossil Finders Certificates.

Sunday morning, part of our group took the Centrosaurus Bonebed bus tour where they witnessed the ongoing excavation of bone from this well know site. The remaining members participated in the guided Fossil Safari to a large microsite within the restricted area, where we all had the opportunity to collect a variety of small vertebrate fossils. These were turned over to the park guide, which entitled the collector to a Fossil Finders Certificate.

In the afternoon, our group proceeded from the campground to just north of the park, near the abandoned townsite of Steepleville. Here we were allowed to collect in exposures where Ankylosaur and Tyrannosaurid teeth were found, as well as Champsosaur and Hadrosaur vertebrae.

As the weekend came to a close, we all left with a greater understanding of the work being done in Dinosaur Provincial Park. The efforts of the park staff in providing supervised hiking and collecting opportunities in this unique and fascinating landscape are especially appreciated.

NOTICE OF GENERAL MEETINGS

The monthly meetings of the Society will once again be held at:

Mount Royal College
4825 Richard Road S.W.
Calgary, Alberta

In: Room 1032 (Rock Lab)

Starting at: 7:30 p.m. sharp

Meetings will be held on the third (3rd) Friday of the month from September 1987 to May 1988. The tentative meeting dates are as follows:

September 18, 1987	January 15, 1988
October 16, 1987	February 19, 1988
November 20, 1987	March 18, 1988
December 18, 1987	April 15, 1988
	May 27, 1988

THE 1987 CALGARY GEM, FOSSIL AND MINERAL SHOW

Les Adler

Many members of the Alberta Palaeontological Society are also members of the Calgary Rock and Lapidary Club. Each year, during the first weekend of May, the Calgary Rock Club mounts one of the finest shows of its type on Planet Earth.

This year our group made extraordinary contributions to the success of the show in the areas of competition, identification, displays and demonstrations.

These contributions will be described herein not in any particular order whether alphabetical, chronological or of importance, only as they come to mind.

Our President, Wayne Braunberger, swept the competition with his display, totally professional, which illustrated with photographs, equipment and specimens, how to collect and prepare Mississippian corals for scientific study and display. The judges awarded Wayne a score of 96% and about half a dozen trophies so that it took two people to carry them away. These prizes were awarded to Wayne at a wine and cheese Awards Party and at a Rock Club general meeting.

Harvey Negrich is the liason person between the general public and professional bodies involved in the province's desire to preserve its natural resources, including fossils. Harvey also arranges and directs the Rock Club's identification booth at each show. At this booth, members of the general public have fossils, minerals and rocks identified for them. This booth was manned totally by members of the Palaeontological Society including Harvey Negrich, Geoff Barrett, June Barrett, Darren Tanke, Karen Tanke, Boris Markhasin, Irene Markhasin, Les Adler, Lyle Hartwig, Don Sabo and Wayne Braunberger.

At this booth, we have lots of "giveaways". The Geological Survey of Canada provides us with catalogues, booklets and pamphlets such as the one on the Fossils of the Burgess Shale. The Tyrrell Museum of Palaeontology provided us with some 700 sheets of printed card which when assembled correctly made a twenty sided geometric figure showing pictures of dinosaurs and trilobites on display at the museum. These came free where formerly one paid a high price for these items. The general public rushed these, and they were soon all gone. Boris brought in a fantastic collection of fossil fish, dinosaur pieces and Mississippian fossils to give away. Many of these were of a quality far higher than what you usually see in many collections.

Darren Tanke brought in from the Tyrrell Museum a selection of bones from Pachyrinosaurus. He spent many hours at the booth demonstrating the various processes the museum undertakes in preparing bones for study and display. Darren uses many chemicals, so that you have to be careful not to bring your hot dogs too close as your stomach will be inclined to rebel.

Dave Watson, a prospective Palaeontological Society member, displayed a fantastic collection of rare crinoids, brachiopods and trilobites of Devonian Age from Silica, Ohio. Dave has developed specialized preparation techniques of displaying these specimens on large slabs of limestone or shale. Specimens of Dave's work are owned by the Smithsonian Institution, Washington, D.C.

Peter Meyer was involved with one of the dealers and was learning how to sell cut polished rocks. Some of the dealers had fossils for sale.

Les Adler had a display case which concentrated on vertebrate fossils. A mastodon tusk and several vertebrae arranged to form portions of skeletons of a Champsosaurus and a hadrosaur tail attracted attention.

Boris Markhasin showed specimens of rare Mississippian Alberta fossils that he has personally collected and prepared. Geoff Barrett displayed a selection of marine invertebrate fossils and Don Sabo displayed a tastefully prepared collection of fossil shark's teeth.

Our Texas members were present having flown in from Temple and Austin, Texas. They displayed a case of Texas fossils and brought a collection of Texas fossils for addition to the Alberta Palaeontological Society's own fossil collection.

Other members of our group who did not display visited and looked in at the 100 display cases. As far as I know, none of us won any door prizes, but we all enjoyed ourselves at this wonderful show to which we had made a major contribution.

At the identification booth, we provided pamphlets advertising our group and, hopefully, we will see new members as a result.

RECENT PUBLICATION

Geoff Barrett

**The Search for the Past
By L.B. Halstead
Doubleday & Company Inc.**

Here we have a first class book intended primarily as a layman's introduction to the world of fossils, but with more than enough off-beat content to satisfy even the most ardent collector. When, for example, did you ever see a photograph of the Delabole butterfly? (Be honest, when did you ever hear of the Delabole butterfly?).

With a concise and lucid text the book deals with major geological processes such as sedimentation, erosion, vulcanicity and plate tectonics, to name only a few. Other chapters deal with the fossil record from the Precambrian up to the appearance of man, with special reference to sites of major importance. Included here are the Precambrian fauna from the Ediacara Hills of South Australia, the Cambrian Burgess Shale fauna from British Columbia and numerous dinosaur sites world-wide.

There is even a chapter exemplifying the often magnificent work done by the amateur collector, serving to illustrate the fact that, contrary to popular opinion, not all amateurs are bungling, hammer-happy idiots! At the risk of being accused of laboring this point, the work of one of these aforementioned "amateurs" was recently the highlight of a display held at the University of Calgary. Featured was the work of Prof. Wilhelm Sturmer and his unique approach to the preparation and study of the faunas of the Hunsruck and Wissenbach Slates.

The book contains hundreds of color photographs, excellent diagrams and a glossary and bibliography.

For a hardback book of this quality, at less than the price of a carton of cigarettes, how can you possibly go wrong?

Price (hardback) \$19.95

We are pleased to publish the following book review by one of our Society members from Texas. This article reproduced courtesy of **AUSTIN PALEONTOLOGICAL SOCIETY**.

LIFE PULSE - EPISODES FROM THE STORY OF THE FOSSIL RECORD Emmette Wallace
Facts on File Publications, New York 1987

Do not expect to pick up this book and read it in one session - or two -- or three. The author is curator of Invertebrates at the American Museum of Natural History in New York. He has lectured, written articles for magazines and two books. This one is a scholarly book with extensive, thorough and different presentation; good drawings (especially the pages facing chapter openings and the accompanying time sections) and excellent photographs.

"Most professional paleontologists think of evolution in geneological terms. Each of us has one or two groups of organisms with which we are especially familiar -- large arrays of related species that arose at some point in the succession of geologic time, persisted for some amount of time (usually reckoned in the tens of millions of years), and perhaps already extinct. My own group for example, are the trilobites (extinct, primitive relatives of the horseshoe crabs and crustaceans). To be more exact, I specialize in a particular group of large-eyes phacopid trilobites which flourished over an interval of some 150 million years, from the so-called "Lower Ordovician" period through the "Upper Devonian".

The first two chapters (53 pg) are general discussion and interesting reading.

Chapter 3, pg 55 - 77, is the Trilobite: Cambrian Excursions and later Diversions. One of the advantages of not knowing much about paleontology is the vast amount of new knowledge I find in each book.

Chapter 4, pg 79 - 119, Life in Paleozoic Seas.

Chapter 5, pg 121 - 153, Invasion of the Land.

Chapter 6, pg 155 - 199, Life's Middle Age: The Glorious Mesozoic.

Chapter 7, pg 201 - 215, Extinction: Resetting the Evolutionary Clock.

Chapter 8, pg 215 - 240, The Cenozoic: Advent of Modern Times.

The jacket blurb says....."Along the way a wealth of compelling and often startling discoveries are uncovered, such as:

1. Where Darwin went wrong on evolution,
2. How the first amphibians may have evolved - to find better ways to stay in the water,
3. What may have caused massive extinction - Not astronomical catastrophe,
4. Why the "progresive" notions of evolution may be mistaken,
5. How man, and all other species, is a part of the current extinction phase. (Try that on for size!)
6. Relationship of transmission of genes and rapid changes in world ecology to "survival of the fittest".
7. Why the fossil record is sporadic, revealing millions of years of intense activity, followed by even more millions of years of inactivity.

If your interest in paleontology goes beyond taxonomy and collecting, this book will provide many hours of informative and pleasant ready and study.

Price hardcover (148 pp) \$19.95 U.S.

NEW MEMBERS

Names and contact information removed
to protect members' privacy.