



ALBERTA

PALAEOLOGICAL

SOCIETY

BULLETIN

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ALBERTA PALAEOLOGICAL SOCIETY

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	Education & Programs	Don Sabo	238-1190
	Fund Raising	June Barrett	246-8738
	Librarian	Karen Weinhold	274-3576
	Membership	Steffie Negrich	249-4497

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. Applications will be referred to the Board of Directors for approval. If not approved, the applicant may appeal to a general meeting where a majority vote shall make the final determination.

Single Membership \$7.00

Each additional member at the same household \$3.00

For further information contact:

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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.

PRESIDENT'S MESSAGE

Wayne F. Braunberger

The Alberta Palaeontological Society was founded in January of 1986 and incorporated under the Societies Act in the Province of Alberta in April of 1986. Prior to the formation of the Society there did not exist an organization in the Province dedicated to palaeontology.

The Society was founded by a group of amateur palaeontologists who have been meeting since the Fall of 1983. In the Fall of 1985 the group was still going strong and it was felt that a society should be formed. The two main reasons for the formation of the Society were (1) to bring together the amateur and professional palaeontologists, and (2) to provide a medium for the sharing of knowledge and information about fossils and the activities of others; in general, to learn more about palaeontology and its related sciences.

The Society's success depends upon the participation of the membership. By becoming active you will be able to share your knowledge with others and will be able to learn about many other subjects, as well as your own particular area of interest. At the present time the Society holds a monthly meeting (except June, July and August), and publishes a quarterly bulletin. Although many of you cannot attend the meetings, contributions of articles to the Bulletin about your interests and activities would be appreciated.

Many future activities are in the planning stages at this time, and any ideas from you, the member, would be welcome. The executive and directors cannot be solely responsible for the success of the Society. All members must take an active role. The old cliché "You only get out what you put in" is highly applicable. We have a tremendous opportunity to explore new territory and create a vibrant society. You, the member, are the key to the Society's success.

FIELD TRIPS 1986

Harvey Negrich

The following trips are planned and are expected to go if at all possible. However, a contact with the resource person is advised.

Due to limited funding within our Society, we are not covered by a legal liability insurance which means the resource person does not assume any responsibility for any of these fieldtrips. It is understood that anyone joining in on the trips is on his own and is not covered by group insurance.

Field Trip No. 1: June 21 and 22, 1986

Location: Tolman Bridge Campground - 17 km. east of Trochu, Alberta

Formation: Upper Edmonton Group

Fauna & Flora: Invertebrates, vertebrates and plants

Resource Person: Wayne Braunberger - Phone (403) 278-5154

Field Trip No. 2: July 19, 1986

Location: Seebe, Grassi Lakes & Banff

Formation: Upper Cretaceous to Devonian Structures

Fauna & Flora: Trace fossils, ammonites, brachiopods and plant fossils

Meet at: 8.00 a.m. at Gulf Truck Stop at the Cochrane turnoff - Trans-Canada Highway No. 1

Note: Some of this trip will be in the National Park and collecting there is illegal.

Resource Person: Percy Strong (403) 242-4735

Field Trip No. 3: August 16 and 17, 1986

Location: Kicking Horse River, British Columbia between 4 and 10 miles east of Golden, British Columbia

Formation: Glenogle Formation - Lower Ordovician

Fauna: Graptolites (Several Locations)

Meet at: 9.00 a.m. KOA Campground east side of Golden, B. C.

Note: Most of these localities are beside very dangerous conditions, being the highway, river and railway, therefore extreme caution is advised. Our longest hike is just over one mile along a railway track.

Resource Person: Harvey Negrich (403) 249-4497

FUND RAISING

June Barrett

While fund raising in general is progressing relatively slowly, our most successful effort seems to be that of the raffle held at the monthly meetings. Without doubt the most popular raffle prize is that of books or publications relevant to the interests of the Society. Fossils also are very popular, so I would appeal to any member possessing surplus books or fossils to please contact me.

As the holiday season is rapidly approaching, members will be vacationing in diverse areas and countries, often the source of material encountered in local rock shops. It is often much less expensive to buy directly from source, so I would ask that if any member sees a "fossil bargain" or has the opportunity to collect any extra material that they bear in mind our raffle.

Some interest has been shown in a suggestion that an auction of books and fossils be held during the summer or fall, the owner of the material donating a small percentage of the auction price to the Society funds. This idea is still in its infancy but I would welcome any comments on this suggestion.

EDUCATION AND PROGRAM

Don Sabo

As Program and Education Director for the Alberta Palaeontological Society, at first I thought it would be difficult to persuade people to put on a half to one hour program for our monthly meetings, but this has not been the case. During the past winter we have had some very interesting and informative talks and slide shows. These have included such topics as a video taped show on Fossils from the Burgess Shale, a talk and slide show given by Percy Strong on Mississippian and Permian reefs of Texas and New Mexico, a talk and slide show on the Geology of the Drumheller Area by Wayne Braunberger, and the Laws and Legislation governing the collecting of fossils in Canada and the United States, given by Mike Wilson and Harvey Negrich.

The May program is to be a slide show and talk by Geoff Barrett on a group collecting trip to the Wheeler Shale Trilobite Beds in Utah and the Green River Fossil Fish beds in Wyoming.

For the 1986-87 session I would appreciate any suggestions and help with programs for the monthly meetings, as well as ideas for a ten to fifteen minute mini program on useful procedures or methods in curation, preparation, etc., to be held in conjunction with the main program.

For further information, contact me at 238-1190.

AN INTRODUCTION TO THE INVERTEBRATE FOSSILS OF THE DRUMHELLER MEMBER OF THE HORSESHOE CANYON FORMATION IN THE VICINITY OF DRUMHELLER, ALBERTA*

Wayne F. Braunberger

The Drumheller area is well known for its vertebrate remains, particularly of dinosaurs. Although not as well publicized, invertebrate fossils may be found in the area. The most common source of invertebrate material is the Drumheller Member of the Horseshoe Canyon Formation, commonly referred to as the "oyster beds."

First named the Drumheller Marine Tongue (Allan and Sanderson), the name Drumheller Member is now used as later workers feel the fauna present suggests brackish water rather than truly marine conditions (Tozer). The Drumheller Member is restricted in occurrence and is not recognized in the subsurface far from the Red Deer River valley (Irish) and apparently pinches out between Morrin Bridge and Trochu (Tozer).

The type section is in Horseshoe Canyon and was measured by Allan and Sanderson as follows:

-arenaceous limestone with abundant <u>corbicula occidentalis ventricosa</u>	3 feet
-barren bluish siltstone, poor in bentonite	19 feet
-arenaceous limestone with abundant <u>ostrea glabra coalvillensis</u>	<u>3 feet</u>
Total thickness	25 feet

At some localities the zones appear to merge together and corbicula and ostrea may be found together.

Ostrea are generally a marine form but can and do exist in brackish water. Corbicula is quite common in brackish water (Warren). Many other pelecypods are known from the Drumheller Member, but the ostrea and corbicula dominate. They are the most notable and readily identified.

In general the Drumheller Member represents a transgression of the Bearpaw sea, perhaps to form a large bay, hence the limited extent of the Member. As well, no strictly marine forms such as the ammonite placenticerias are known from the Member. The fauna present and the absence of such forms as placenticerias would suggest a littoral nature.

For those who would like to examine the Drumheller Member, a highly accessible outcrop is present at the Horsethief Canyon viewpoint (just off the Dinosaur Trail). This outcrop is advertised in much of the tourist literature as the "fossil oyster beds".

The Drumheller Member is a unique feature in the Red Deer River Valley near Drumheller. Naturally attention is drawn to the Dinosaurs as they are the valley's most interesting scientific feature. However, it is time well spent to examine the Drumheller Member, particularly if you have an interest in invertebrate fossils.

REFERENCES:

Allan, J. A., and Sanderson, J. O. G., 1945, GEOLOGY OF RED DEER AND ROSEBUD SHEETS, ALBERTA RESEARCH COUNCIL, REPORT NO. 13

Irish, E. J. W., 1970, THE EDMONTON GROUP OF SOUTH-CENTRAL ALBERTA, BULLETIN OF CANADIAN PETROLEUM GEOLOGY, VOL. 18, NO. 2, P.125-155

TOZER, E. T., 1956, UPPERMOST CRETACEOUS AND PALEOCENE NON-MARINE MOLLUSCAN FAUNAS OF WESTERN ALBERTA, GEOLOGICAL SURVEY OF CANADA, MEMOIR 280

WARREN, P. S., 1926, THE INVERTEBRATE FAUNA OF THE UPPER PART OF THE EDMONTON FORMATION ON THE RED DEER RIVER, ALBERTA, ROYAL SOCIETY OF CANADA, TRANSACTIONS, SERIES 3, VOL. 20, SECTION 4, P. 1-7, 1 PLATE.

* *The author intends to put forward a more detailed work for inclusion in a future issue of the Alberta Palaeontological Society Bulletin.*

NOTICE: Attached to your copy of this Newsletter is our membership list as of April 11th. Additions to this list will be found on page 13.

Also attached are pages 5, 6, 7 and 8 of the Society's by-laws. Please substitute these pages for those you currently have.

If any member does not have a copy of the by-laws, please contact the Secretary-Treasurer for a copy.

The collecting of fossils can be a very interesting and rewarding pastime, and for years it has been especially popular in Alberta. One can derive recreational and educational benefits from fossil collecting, by learning about the animals and plants represented. However, with the fun comes responsibility as well. In Alberta, this is more strongly the case than almost anywhere else in North America.

The biggest problem we face with collectors is something called EGO. Many collectors are in the field merely to "get one of everything". A complete collection is viewed with awe by other collectors, and unfortunately there are individuals who derive enjoyment not from the pleasure of learning, but from "showing off" their collection to other people. I am talking here not of educational public displays, but the "private showings" to colleagues and cronies who sit and compare notes as to who has the biggest collection, who has the "best" dinosaur bones, and so on. The true, dedicated collector is not worried about a score-card, but instead is interested in understanding his or her collection for what it is and what it represents. It is a small step from this to the approach of a scientist; whereas the difference between a "one of everything" collector and a scientist is extreme.

The dedicated collector realizes that fossils are for all people. A one-of-a-kind specimen belongs in a museum, no matter who finds it. Collectors often seem to have the impression that scientists at the university "keep" fossils, or have their own collections. This is not the case. I can think of many situations where university scientists have turned over specimens to major museums, such as the Tyrrell Museum of Palaeontology, because of the need to protect and preserve the specimens. The University maintains its own teaching and research collections, but these do not belong to individual scientists.

Frequently I am told that fossils are a public resource (which is true), and therefore that a collector is perfectly within rights to pick them up and take them home (which is not true). The minute you pick up a fossil and take it home, you are converting it from the public resource into a private possession. Your home is not open to the public. A home "museum" may be open to friends, but is far from being available to anyone in the general public, or even to an interested scientist. You might counter that your collection is available to anyone who needs to see it, for scientific reasons, but how will the right scientists ever hear about your collection in the first place? Museums that serve as repositories for important fossils are relatively few in number and are well known to palaeontologists--so that they can have ready access to specimens whenever necessary.

I also hear complaints about fossils given to museums that do not end up on display. This certainly happens. Museums have large collections in drawers "behind the scenes". These drawers are not dead storage. The material is being used in scientific studies all the time. Again, it is really Ego that wants to see an entire private collection on display. Special rooms in local museums are often designated by benefactors for the display of their entire collections--much to the glory of the collector. Often, these sorts of collections include a lot of second-rate material along with the display-quality items, but the museum is constrained by the terms of the donation to show everything. Why, really, should this be necessary? Are we really so vain?

Museums need more than "one of everything". One of the important things about a major museum is that it has many specimens of a given fossil, so that we can understand the range of variation inherent in that particular animal. One specimen alone cannot tell us all there is to know--large series of specimens are regularly consulted by scientists in their studies of new finds. This is the function of the museum "backroom". And if it had not been for such museum "backroom" collections, we would not know very much about dinosaurs even today. Only after years of study of large series of specimens are we coming to see the range of variation and to pick out the important differences that define truly distinct dinosaurs.

A dedicated collector should work closely with professionals, checking to see if fossils are scientifically important or not. There are some types of fossils that are well enough known and abundant enough on the landscape that they can readily be kept in a private collection. But there are others that really do belong in museum collections, and you may even find a few that justify display to the public.

In Alberta, fossils are protected under the Historical Resources Act of 1980 (revised). Ownership of fossils rests with the provincial government. Private ownership of fossils found in Alberta is no longer possible. This does not mean that the government is going to harrass everyone who picks up a dinosaur bone fragment or a fossil leaf. But what it does not allow is excavations for the purpose of private collection. You cannot dig up a dinosaur to put in your basement. It also means that you must work with the proper authorities (in this case, the staff of the Tyrrell Museum of Palaeontology, in Drumheller) when you make interesting finds. Unless you have extensive training in palaeontology, it is unlikely that you will be able to determine for yourself that a given fossil has no scientific significance.

Please note that even the professional palaeontologists in Alberta are required to get government permits every time they go in the field to collect fossils. There is no privileged minority here given carte blanche to go out and collect fossils at will. Even the staff of the Tyrrell Museum are required to get permits through a government board that includes representatives from other institutions and from the provincial rock and gem club!

Time and again I have been told by collectors that it was no good leaving a specimen in the field, because it would just erode away into the river. Therefore, the material "just had" to be collected. There is, in fact, a procedure that prevents such material from being washed away. Collectors who find important material in place in the rock should contact the Tyrrell Museum right away (their number in Calgary is 294-1992). Tyrrell Museum palaeontologists will visit the find at their earliest opportunity to assess it. If it warrants further work, they will arrange to collect the fossil as soon as the field schedule permits.

The major problem faced here is one of impatience. People reporting fossil discoveries seem to want instant responses, and the Tyrrell Museum has only a finite number of people available to check on things. In some cases, they must wait until a group of finds has been reported in an area, at which time they can go to the area and check on all of them. Once the finds have been confirmed as important, they must be ranked in order of priority; the most endangered specimens must obviously be collected first. Sometimes, the

discoverer simply has to sit back and wait--patiently, we hope--until excavation can take place. Erosion is rapid in the badlands, but a buried dinosaur fossil can be secure for a few years if it is monitored periodically and kept free of vandalism.

Impatience is the root cause of a great deal of vandalism in the province, and one of the main reasons for the Historical Resources Act. Too many people have been designating themselves as "experts", hopping off to the badlands for an afternoon's "digging". It is simply not possible to do a careful job on a major bone find in a hurried afternoon; in the past a great many people finished their day by clawing out whatever had not been removed carefully (because they suddenly noticed it was getting late). A pile of bone fragments would be transported home, and when the collector found it was difficult to put things back together, the specimen went into the garbage.

Every fossil has a context: the setting in which it is found tells us important things. A displaced bone fragment, if understood properly, can lead us back to the outcrop where the rest of the bone is still in place. If a Saturday-afternoon collector picks up the fragment and removes it, that piece of information is lost and the buried specimen will not be found until it is further damaged by erosion. A bone in place in the rock, even if it is not part of an articulated skeleton, can tell us much about the depositional environment, and bonebeds made up of seemingly jumbled material turn out to have a great deal of order after all. They can tell us about the growth and population structures of the animals represented, and about the community relationships of various species. Any fossil picked up and taken home without the taking of detailed records has lost its context.

The message, then, is clear. In Alberta, at least, we all have a responsibility dictated by law. Elsewhere, the responsibility is just as large, even if laws do not specifically address the issue. In Alberta, it is illegal to remove palaeontological resources from the public domain. That is to say, while you may pick up fossils that lie on the surface in displaced contexts, they do not become yours. They remain the property of the crown. You may not sell them, for example, because they are not yours to begin with. You may not remove them from the province. It is illegal to conduct excavations for the purpose of recovering fossil specimens unless the activity is covered by a government permit (the same thing applies to professional palaeontologists). Amateurs may, in some circumstances, be able to apply for permits. This is possible when they are working closely with an institution (the universities or the Tyrrell Museum). The institution is charged with the responsibility for monitoring all material collected; and anything of clear scientific importance would immediately be sent to the appropriate museum for proper curation.

IN THE NEWS: Dr. Emlyn H. Koster has been selected as the new Director of the Tyrrell Museum of Palaeontology in Drumheller. Dr. Koster was formerly with the Alberta Research Council and is well known for his work in Sedimentology. Many of you may be familiar with Dr. Koster's paper entitled "Sedimentology of a Foreland Coastal Plain: Upper Cretaceous Judith River Formation at Dinosaur Provincial Park", published by the Canadian Society of Petroleum Geologists. He will be starting sometime in May but will not be a permanent resident of Drumheller until late June.

A MEMORABLE BADLANDS EXPERIENCE

Bob Markhasin

The badlands of Alberta have gained worldwide recognition, not only for their beauty but for the vast number of reptilian fossils found within them. People flock to these barren but beautiful wastelands from all over the world just to walk through them. Last year I got a chance to do more than just walk.

During last summer holidays, I was fortunate enough to be allowed to go as a volunteer on a Tyrrell Museum of Palaeontology field trip to Dinosaur Provincial Park. This field trip was led by Dr. Donald Brinkman (Curator of the Vertebrate Palaeontology Department) of the Museum.

This field trip was over two months long, and attracted university students and professors from all over the world. Unfortunately I only went for four days, but in those four days a whole new world was opened up for me.

On the first day of the trip Dr. Brinkman took my mother and me, and another couple from Michigan to a microsite on the east end of the park. It was about a 20 minute hike to the site from where we parked the truck. We arrived at a fairly level spot in the badlands which Dr. Brinkman announced as being "egg shell site #2". As everybody started walking and looking around I got very frustrated because I couldn't see anything worth collecting, so I went back to Dr. Brinkman to ask where all of these marvellous little fossils were. As I approached him, he was lying on the ground picking things out, so I did the same. It was then I found out why they called this place a "microsite". These minute fossils included such things as salamander jaw bones and vertebrae, frog bones, fish jaw bones, vertebrae and scales, mammal jaw bones and teeth, pieces of turtle shell, egg shell fragments and of course, all sorts of dinosaur bones and teeth. That day at the microsite was the most exciting day of all the time I was on the trip.

On the second and third days of the trip, Dr. Brinkman took us to work on a bone bed. 90% of this particular bone bed's contents are of the Ceratopsian Centrosaurus (a type of horned dinosaur), as well as an occasional part of a carnosaur. The bone bed itself was huge, but everybody was working on an excavated strip of the bed. My mother and I were assigned to uncover a few dinosaur ribs and backbones as well as to start excavating the end part of that strip.

The process of uncovering the bones was quite interesting. First the rock around the bones was chipped away without shattering the bone. Then when the bone was totally uncovered, the surface of the bone was coated with a type of hardener called Glyptal. After this process was completed on one area of the strip, Dr. Brinkman or another palaeontologist would place a one by one metre grid onto this area and draw in the bones on a scale-sized graph of the strip of the bone bed as they were still positioned in the rock.

This process was followed until the entire strip of the bone bed was excavated. Then all the palaeontologists and students would go to the area and remove all of the exposed and graphed bones.

The third day was a little more exciting than the second day because we worked half of the day on the bone bed and during the other half we went prospecting with a student from British Columbia named Ken.

While prospecting we found a few small and unknown microfossils, which in fossil composition were similar to that of "egg shell site #2". We were quite impressed by one fossil that Ken found due to its rarity. This fossil was the jaw bone of an extinct gar-pike called Belonostomus. This jaw bone was perfectly preserved and even contained a long row of small needle-shaped teeth. This fossil and all other fossils found and collected by the volunteers were given to the museum for further study.

The fourth day of the trip was sort of 'short-lived' which was extremely disappointing. On that day practically everybody in the camp piled into three vans and headed out to a small microfossil site about 1/2 mile from the ceratopsian bone bed. Upon arrival, Dr. Brinkman handed out picks, shovels and potato sacks to everyone. When each person had something to carry, the whole group started off on foot to the site, about another 1/4 mile into the badlands.

We finally arrived at a little pit made up of dark brown sand, and as usual, I was the first one on my hands and knees looking for the little guys. But the little guys were much smaller than I expected. Some of the men started picking and shoveling the sand into the potato sacks. When the sacks were full it was up to the rest of us to carry--or in my case, to drag--the sacks back to the truck. This process continued until about 50 sacks were full. Then we all piled back into the trucks and headed back to camp.

Upon arrival at the camp the volunteers carried the sacks to the nearby river and dumped the contents into sifters which in turn were put into the river so that the sand would be washed away leaving the fossils. This process would take two weeks. All the fossils collected from this sand will eventually be studied in the museum in hopes of finding exactly what the ecology of the area was like back in the Cretaceous Period.

We had just completed emptying the sacks when it started raining, so we packed up, thanked everyone and said our good-byes. Hopefully we will return next summer and do it all over again.

(Bob is our youngest member but already holds several very significant discoveries to his credit. Editor)

Carcharodon megalodon CHARLESWORTH (Fossil Shark Teeth)

Anyone interested in purchasing a nice specimen for his collection can do so at reasonable prices. Contact Peter Rosinski in Calgary at 403-266-3619. Some of Peter's specimens go up to five inches. These teeth were collected in Florida.

FURTHER COMMENTS REGARDING DATA CURATION

Dr. T. P. Poulton
-Geological Survey
of Canada

It was nice to see from Les Adler's note that collectors are concerned with curating their specimens with respect for eventual potential use by professionals.

Professional palaeontologists are, like most other people, a cynical lot and do not readily accept others' interpretations, whether they come from amateurs, other professionals, or whatever. Most of the material on Les Adler's model label falls into this category - identifications are among the most interpretative data the palaeontologist deals with, and any competent palaeontologist will view another's identifications with smirking interest only - something to be criticized and corrected.

Posterity requires documentation of hard data - namely locality and stratigraphic setting. 90% or more of the space on fossil labels in palaeontological institutes (as opposed to display labels in museums), allows for detailed locality data. Our own forms do not even allow space for an identification, but do require (for retrieval from the collections) an indication of whether the specimen is a macrofossil, microfossil, lithological sample, etc. The only bit of interpretation is therefore the formation name and the age (and they are entered so that a person searching for assemblages can get at a group of collections from a common stratigraphic horizon). Our forms require the following data to be entered by the collector: year, collector, field number, distance from top or base of collected interval, what is the character of the interval (an outcrop, formation, etc.), name of location, sample type, formation (and member), latitude, longitude, UTM co-ordinates, township/range data, NTS co-ordinates, reference to source of further information (i. e. collector's notebook if they are permanently stored), and finally, probable age. A unique number is assigned to each collection, so that all specimens associated at one level at one locality can be recognized as such by that number - important for assemblage studies. Our forms, designed for computerized data entry, are too brief in that lengthy detailed locality description cannot be accommodated - a regrettable situation. Also, few collectors actually fill in all the data with a view to the future worker.

Even detail such as "so many hundred feet upstream from the mouth of ____creek" is useful - and identification of a particular "Fish Creek" in a certain area with Lats and Longs is essential. Compass bearings from an identified mountain peak (if only by its elevation from a topo map) are also very useful. Stratigraphic data involves recognition of a stratigraphic unit - a formation or member if possible, distinguishing characteristics of the fossil bed, and distance (nowadays in metres) from the top or bottom of the unit.

The future worker will want, ideally, to find the locality again to get better material for his studies, and he will need all the help you can give him to find it. Try putting yourself in the same position, of having to re-locate your fossil locality on the basis of your label only.

RECENT PUBLICATIONS

Geoff Barrett

FOSSILS OF THE BURGESS SHALE (G.S.C. Miscellaneous Report 43)
by S. Conway Morris & H. B. Whittington

This publication was produced by the Geological Survey of Canada as a contribution to the Centennial of the National Parks of Canada. It provides a fascinating glimpse into the world of some of the more bizarre inhabitants of the Cambrian seas, the unique fossilized remains of which are to be found near the town of Field in Yoho National Park, British Columbia.

The text is constructed in such a way that the serious student or the merely curious will find it of interest, and the photographs are magnificent. At \$5.75 a copy EVERYONE should have one, truly a masterpiece. Available from authorized book stores, or, in Calgary, at the Geological Survey of Canada offices at 3303 - 33rd Street N. W.

THE BURGESS SHALE by Harry B. Whittington--Published by Yale University Press

Another Burgess Shale publication by the same author as the previous paper; this time aimed at the more experienced or professional palaeontologist.

Harry Whittington is currently the leading authority on the Burgess Shale fauna and has worked with the original material collected by Walcott during the years following his initial discovery in 1909. Again the photographs are magnificent, as are the models and reconstructions. Somewhat expensive at \$37.50 but a first class book for the serious student.

Incidentally, it is worth noting that a permit may be obtained at the Yoho Park Administration Office in Field to allow access to Walcott's original excavation. It should be stressed that this permit allows the visitor to examine the excavation but in NO WAY is it a permit to collect the fossils. Violators are liable to prosecution.

TRILOBITES OF THE THOMAS T. JOHNSON COLLECTION

Thomas Johnson is probably one of the best known of the trilobite collectors; his trilobites are to be found in major collections everywhere. This book is a showcase for some of his personal collection. The text is relatively short, and along with technical information covers such topics as collecting, preparing and photographing trilobites. The greater part of the book is taken over by close-up photographs of his incredible specimens. This is a limited number publication and unfortunately only available in soft cover. Price is approximately \$18.50.

ATLAS OF INVERTEBRATE MACROFOSSILS Edited by John W. Murray
Published by John Wiley & Sons

This book was compiled with the collaboration of no less than 14 distinguished authors, all authorities in their own field. All the major groups of macrofossils are covered and includes a description and classification of each group. The book describes and illustrates with excellent photographs, several hundred genera. Whilst the majority of genera described are of British origin, many, however, are relevant to North American stratigraphy. Available only in soft cover, price depending upon supplier, around \$30.00

Readers of the preceding book reviews may have possibly noticed just the merest hint of a bias towards invertebrate fossils. If any member would like to rectify this situation and can review or recommend any interesting vertebrate publications, or indeed, contribute an article on any related topic for inclusion in a future bulletin, I would be most appreciative.

Editor.

ADDITIONS AND ADDRESS CHANGES TO SOCIETY MEMBERSHIP LIST

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

Our thanks are extended to Brenda Bakarich, a Society member who has recently moved back to her native Texas. Brenda kindly donated her collection of Alberta fossils, along with several card index units, to the Society collection. We wish Brenda every success for the future and look forward to hearing of her palaeontological exploits in the Lone Star State.

Still on the subject of Texas, one of our newer members, Mr. Emmette Wallace of Temple, Texas, was in Calgary recently as an exhibitor at the annual show hosted by the Calgary Rock & Lapidary Club. Emmette is well-known in palaeontological circles, holding memberships in several notable societies. He kindly donated a small collection of Texas echinoids and brachiopods on behalf of the Austin Paleo Society to be used as fund raising material. We are pleased to welcome Emmette to the Society.
