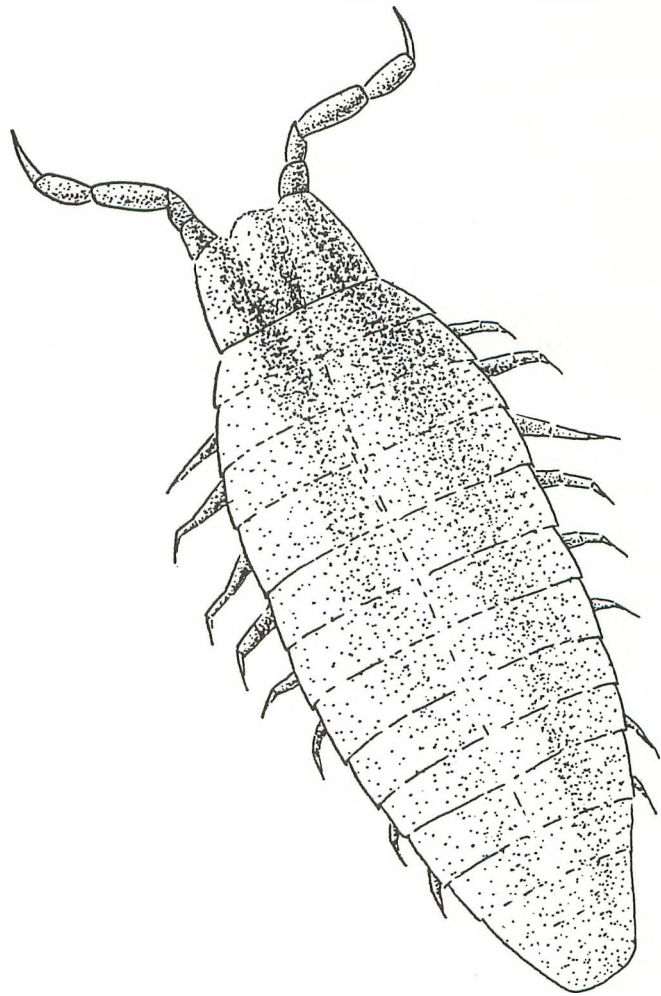
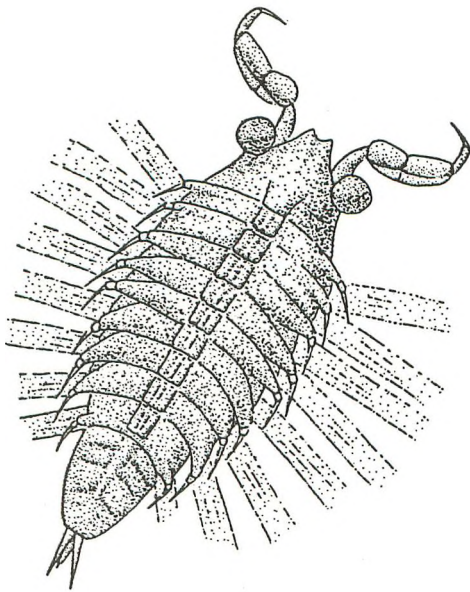


M.A.P.S *Digest*

Official Publication of
Mid-America Paleontology Society

Volume 9 Number 6
Summer, 1986



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EXPO VIII EDITION -- TRILOBITES

Volume 9 Numbers 4 & 5

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EXPO VIII -- Just Super!
 BEDFORD -- Indiana Society of Paleontology
 doing very well, thank you!

MARK YOUR CALENDARS

If you are traveling you will find friends
 at all these places.

- 27 June California Regional
 29 Sacramento, California
- 17 July Midwest & Federation
 20 South Bend, Indiana
- 8 Aug Northwest Regional
 10 Medford, Oregon
- 10 Aug PUTNAM MUSEUM, Davenport, Iowa
 2:00 QUAD CITIES ANCIENT SEAS
 Dr. Richard C. Anderson Chrm
 Geology Department
 Augustana College
 Dr. Anderson's talks are always
 just excellent.
- 30 Aug MAPS LABOR DAY WEEKEND FIELD TRIP
 Saturday 9:00 am Meet at the
 parking lot of the All-State Inn in
 Seymour, Indiana. We will hunt
 Ordovician sites near Sulphur and/
 or Bedford, Kentucky -- Cincinnati
 Fossils.
- 31 Aug MAPS LABOR DAY WEEKEND FIELD TRIP
 Sunday 9:00 Meet at the parking
 lot of the All-State Inn in Seymour,
 Indiana. We will hunt Mississippian
 site near Sulphur, Indiana. Chester
 Series Fossils--blastoids, crinoids,
 brachs, etc. Margaret Kahrs will be
 our hostess for the weekend.
- 4 Oct MAPS FIELD TRIP Saturday 9:00 am
 Meet at the Derby Station south of
 Cedar Rapids, Iowa. Take the Air-
 port Exit and the station lies be-
 tween Interstate 380 and Highway 218.

We will hunt at a quarry near Fairfax, Iowa
 in the Cedar Valley Formation of Devonian
 age. Beautiful trilobites, brachs, maybe
 blastoids and crinoids. Marv Houg will be
 our host.

quarry

Collecting at this/depends largely on the
 whim of the last blast. If hunting is not
 accessible because of blasting, another
 spot will be found for the Field Trip.

- 24 Oct FOSSILMANIA IV Oak Dale Park, Glen
 26 Rose, Texas. Potatoe Bust Friday,
 Texas BBQ Saturday, breakfast Sat-
 urday and Sunday. See last page for
 details and registration form.
- 25 Oct Eastern Regional
 26 Providence, Rhode Island
- 1 Nov MAPS Meeting
 Augustana College, Fryxell Museum,
 Rock Island, Illinois
- 21 Nov Rocky Mountain Regional
 23 Phoenix, Arizona

1987 April 24, 25, 26 -- EXPO IX

It Will Be Fine At EXPO IX
 Never mind jonquils, how about lilacs!

(())

Earthy thoughts from Frank Baird, Jr., a pro-
 fessor of science at Harvard.

"Species extinction is now accelerating and
 will reach ruinous proportions during the
 next 20 years. No one is sure of the number
 of living species of plants and animals, in-
 cluding such smaller forms as mosses, insects
 and minnows, but estimates range between 5
 million and 10 million...

"During the next 30 years, fully 1 million
 species could be erased. The current rate is
 already by far the greatest in recent geolo-
 gical history; it is vastly higher than the

COVER: The illustrations of the cover are of soft-bodied fauna found in the Silurian of
 southeastern Wisconsin. These two soft-bodied creatures and others were discovered
 by Gerald Gunderson and Ronald Meyer, both of Middletown, Wisconsin. Many thanks
 to Gerry Gunderson for his artwork. Story page 41.

than the rate of production of new species by natural evolution. Furthermore, many unique forms that emerged slowly over millions of years will disappear. In our own lifetime, humanity will suffer an incomparable loss in esthetic value, practical benefits from biological research and world-wide environmental stability."

Donald Kaul
DES MOINES REGISTER

(¶ ¶)

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--John F. Kennedy

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- - -

WANTED: Pre-cambrian stromatolites and metazoans for purchase or will trade Missouri Pre-cambrian stromatolite (Ozarkcollenia laminata).

Tom Coughlin
6231 O'Dell
St. Louis, MO 63139

(¶ ¶)

G R E A T S A L T L A K E S T I L L R I S I N G

The lake, which has risen 12 feet in the past three years is now higher than at any time since Mormon Pioneers settled Utah in 1847..

When the lake rises, it spills over into deserts to the west and southwest, an event that is thought to have occurred at least three times over the last 6,000 years. Though the lake level has fluctuated in the geologic past, a lot more work is needed to understand the frequency and duration of such changes... because of limited historical data, researchers cannot say whether or not the extremely wet weather of the last few years is really unusual.

SCIENCE NEWS
Carlos Bazan

SOFT-BODY FOSSILS -- Gerald Gunderson and
6413 Elmwood Ave
Middletown, WI 53562

Ronald C. Meyer
7306 Elmwood Avenue
Middletown, WI 53562

During a search in southeastern Wisconsin for Silurian trilobites, five years ago, we happened upon a small bug-eyed creature. In the following months we found more of them along with many other soft-bodied fossils. To us the most fascinating specimens of that find are those that are like the first creature collected.

These creatures show a broad range of sizes. The smallest is less than a centimeter and the largest is eight centimeters long. To some degree they look like a hellgrammite--an aquatic, carnivorous, larval state of the dragon fly. Hellgrammites catch food with a pair of long folding appendages and move about on sets of jointed legs in the tangle of plants. Up front examination reveals hook-tipped appendages on the fossils which seem to have a potential for grasping, as well. Could this animal have been a carnivore? Numerous walking or crawling legs are evident on many of the specimens. Another feature observed on a few specimens are faint structures that extend out beyond the legs. Perhaps they functioned as gills or helped in swimming.

Besides the variety of appendages, this is a unique Paleozoic organism for its over-all morphology: at least nine body segments, a pair of conspicuous eyes, and tail spines.

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SOME LOOSE ENDS

PERMISSION GRANTED TO REPRODUCE MAPS ARTICLES IF: Author's permission is given,
Credit is given MAPS, and if time permits
MAPS Editor is notified.

MAPS DUES HAVE INCREASED TO \$10 PER YEAR--fiscal year December 31 to December 31.

ALL EXPO EDITIONS AND MEMBERSHIP DIRECTORIES should have been received.

THE MEMBERSHIP DIRECTORY HAS MANY ERRORS. MAPS Board of Directors has become aware of this. If you are not listed, or if your address was not changed, and/or nodule was not changed, please send all corrections to: M. Lillybeck, 1039 - 33rd St Ct Moline, IL 61265. Your patience is very much appreciated. We will let you know how we plan to correct the errors as soon as possible.

YOUR NEXT DIGEST WILL BE MAILED THE END OF SEPTEMBER. Hope you find lots of treasures from ancient seas, lakes, forests, swamps, watering holes (miss anything, DK?). Meet lots of MAPS friends at all those places--special people.

MEET A MAPS FOSSILITEER

On the registration table at EXPO VIII was a beautiful plaque -- The Harrell L. Strimple Award Of The Paleontological Society presented to William H. White, Jr.

Inquiries confirmed that William H. White, Jr. was indeed present at MAPS. Who is he? Do you know him? Where is he? Will you take me to Him?

Bill White has been at all the EXPOS. He sits at the end of Dan Cooper's swap area. You might see him engaged in a trilobite discussion with one or several of the big "T" society. More often you see him in quiet solitude diligently cleaning away at a specimen.

Candidates for the Strimple Award are very special collectors. I approached Bill wondering what this man would be like who I had seen at the EXPOS but who rarely looked up or spoke. What a private, gentle, generous man he turned out to be.

Bill began collecting at the age of 15 or 16 from a creek bed which ran through his parents' farm. He says he came by his curiosity naturally because his Mother was a very good friend of Christine Cleburn who later married Harrell Strimple. His Mom and Christine traveled the mid-west for many years collecting fossils.

He first met Dr. Kenneth Caster of the University of Cincinnati when he and two colleagues came walking up the streambed to his parents' farm. Dr. Caster always took time to answer Bill's many questions born of the blossoming curiosity of the beginner collector. Through the years Dr. Caster was generous with his time and permitted Bill access to his department facilities which also included being allowed to work with many of his graduate students.

Bill White's fascination in this very special hobby is the echinoderm Edrioasteroidea. He is still trying to find a juvenile Streptaster.

In all the conversations one hears little about his own labors but always the "good fortune" of working with geologists from the University of Cincinnati and graduate students.

Bill "teamed up" with Dan Cooper in 1976 which he says "offset taking up a new hobby." He watches the young collectors in MAPS and notes how generous they are with material and how knowledgeable they have become.

In the presentation of the Award by Dr. Bruce M. Bell, Post Oak Oil Company, Oklahoma City, Oklahoma 73112, Dr. Bell said "...we focus on ...one of the exceptional people..., one of many who have advanced our science through endless hours of labor and incredible generosity"

..."(Fossils) aren't everything, just as crucial is the work of collecting them."

Bill had no chance to pursue his love of fossils professionally, because World War II promptly stuck this fourteen-year-old kid with running his family's farm. But his love of trilobites...and other fossils, married to his love of the outdoors, has given Bill an avocation which has lasted a lifetime...

Years of collecting by Bill have produced a variety of important specimens of rare fossils; these have always been made available to those doing research with only one caveat. If you do not publish it, you do not get it; someone else will.

The large numbers of beautifully preserved fossils that Bill has collected have considerable economic value and are sought after by individuals and dealers alike. Yet, never did Bill put his needs first. If he had specimens of scientific value, they went without question to those of us who would work on them. With the outrageous expenses of raising a family these days, I find it quite remarkable that Bill still gives away the fruits of his labor so freely, and I'm not sure how many of us professionals would do likewise were we in Bill's shoes."

Bill's response included remarks about amateurs "who are assets to paleontology when guided and groomed by the university faculty to become the type of collector that would be of value to the university...Close association with universities and recognition by awards (such as The Harrell Strimple Award) will encourage more amateurs to become more deeply involved with their local universities, thereby preserving the scientific value of their finds."

..."We, the amateur collectors, do have an organization, the Mid-American Paleontological Society, that is dedicated to teaching the beginner the value of his finds, the proper methods of preserving their scientific

value, and the importance of working with the professional in a manner that will be of benefit to both."

In Dr. Bell's closing remarks he said, "Bill and a close-knit group of friends continue to scour Cincinnati and far beyond for the rare, the new, the unusual. Rain or shine, and sometimes even in the snow, the hunt goes on. Without such men and women, our profession would be far from its current level of sophistication."

Madame President, it is with great admiration that I present to you our Strimple medalist for 1985, Mr. William H. White, Jr."

Congratulations

Mr. William H. White, Jr.

from all of your fellow MAPS members!

- - -

The first presentation of The Harrell L. Strimple Award of the Paleontology Society was to medalist Lloyd and Metta Gunther and their son Val.

These exceptional collectors offer a challenge to all MAPS members to remember the foremost concern when in the field remains: Will this life-form contribute to science? AFTER that, Wow, I'll put this on the mantle, or _____ will need this in his/her collection.

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ANTARCTICA VERTEBRATES

In mid-November, funded in part by The National Science Foundation, a team of scientists headed by Dr. William Hammer, Augustana College, Rock Island, Illinois, arrived in Antarctica to hunt for Triassic amphibians and reptiles.

This was the third scientific visit to the continent by Hammer. The team collected more than 350 fossils, including remnants of at least four species of amphibians and reptiles never found before in Antarctica

"Hammer said the fossils appear to be important for several reasons:

About 50 of the fossil bones, including specimens from large amphibians and mammal-like reptiles, are from a different age than those found on other Antarctica expeditions. The

new fossils are believed to be more than 200 million years old, but younger than previously discovered specimens, which were about 225 million years old. They were found in rock strata about 1,000 feet higher than the earlier discoveries.

The find means that for the first time geologists may be able to trace a portion of the continent's biological history for vertebrates... The new fossils may give scientists clues about how long certain animals existed in Antarctica and how they evolved.

They also may provide new insight into the continent's environment during the Triassic period, between 225 million and 190 million years ago. The period was marked by a great expansion of reptiles. Previous findings have indicated the climate was mild during that period, something like that of southern California today, said (James W.) Collinson, (a professor at Ohio State University) who also led a geological team to the Antarctic this season.

The find could provide new evidence about continental drift, the geological theory that holds that all the continents were once connected, but drifted apart.

Hammer believes the piece of jawbone he has in his office may have come from an extinct amphibian related to animals whose fossilized remains have been found in southern Africa and Australia. That means the find could help reinforce the theory that Antarctica, Africa and Australia were connected at one time.

The find could also provide evidence about whether similar types of animals developed and died out over different periods of time on the different continents, leading to inquiries about why that happened...

The sites where the fossils were found were once ancient rivers and flood plains; now they are on exposed mountainsides several thousand feet above sea level."

The collected fossils fill about 40 crates. ... "They'll provide years of laboratory work in preparation and study, although the full significance of the find may be known by as early as this fall."

THE DESMOINES REGISTER
Peggy Wallace, Dubuque, Iowa

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SEDIMENTARY NOTES

LLOYD GUNTHER, 28 North 2nd West, Brigham City, UT 84302

A note to get this information to you about the new books on the Burgess Shale.

THE BURGESS SHALE by Harry B. Whittington
Published by Yale University Press, New Haven, Connecticut.

Lloyd does not have the price for this book but a note to the publisher will get it.

The second is just off the press:

SPONGES OF THE BURGESS SHALE (Middle Cambrian) British Columbia by J. Keith Rigby 1986. The book is priced at \$25 plus postage & handling. It can be ordered from either Canadian Society of Petroleum Geologists, #505, 206 7th Ave. S.W., Calgary, Alberta T2P 9W7 or

Geological Association of Canada Publications, c/o Business & Economic Services, 111 Peter St., Suite 509, Toronto, Ontario M5V 2H1

J. A. MITCHELL, 140 Edison Avenue, Detroit, MI 48202 In the course of my travels I always make an effort to visit museums where fossils are on display. If you think brief descriptions and assessments of collections would be of interest to MAPS members, I would be pleased to prepare a series of articles for the Digest.

Hooray! Do it. Sounds tres bien. Merci.

MARK and JEANETTE ROGERS, Fine Minerals and Gems, P.O. Box 1093, Yucaipa, CA 92399

While doing the Grand Junction Gem & Mineral Show, we discovered Dinosaur Valley, Museum of Western Colorado, 4th and Main (Downtown) Grand Junction, CO 81501.

It would make an excellent article for the Digest.

(Have you been there, Mr. Mitchell?)

ALLEN GRAFFHAM, Geological Enterprises, Inc.
P.O. Box 996, Ardmore, OK 73401

We have recently found two extremely rare Bromide trilobites in our quarry. Neither one has ever been found as complete trilobites before. Both are spiny types and the one Jowana found has spines on the spines. Could write up a paragraph or two on these, if you want a follow up on the Oklahoma trilobite paper.

Sounds super! Terrific start for the winter Digests coming up. Thanks, Allen

Two letters arrived. One one day, the second the next. Both dated the same day.

"He"respectfully suggested when the writer forgets to underline a genus name I might consider a straight edge, and further damaging the asthetic (sic) appeal of the Digest with free hand slashes or correcting misspelled words by hand when "white out" is better, and, boy, do I know about "white out".

I checked to see if he might be an engineer (I'm married to an engineer), Mr. B. is a geophysicist. That's in the same ball park.

He said some nice things about the Digest, too. Gil says when the Board can afford to pay \$25,000 for the Editor's job then the typos can be expected to ALL disappear.

I'm taking my own survey, now. NPL (that's my husband)says if it doesn't interfere with what the writing is saying, leave it. I'll check with many others, but I think "his" suggestion is quite valid.

Monsieur, I'm trying to discover what your interests other than trilobites. We better do something where I don't ruin the aesthetics.

Seriously, I appreciate your very valid constructive criticism. When TIME becomes a serious commodity, I'll simply leave the typos. It's "white out" and straight edges for this editor from now on--and I suppose a sprinkling of typos. Marty's the only one who is typo free. Thanks, David.

HIGH SCHOOL PALEONTOLOGY FIELD PROGRAM

The following from Steven R. Manchester, Curator, Fossil Plant Collection, Dept. of Geology, 1005 East Tenth Street, Bloomington, IN 47405 arrived too late for anything to be done this year. If anyone is interested, file away for another year.

A high school paleontology field program co-sponsored by the Oregon Museum of Science and Industry and Indiana University exists. This program is, as far as Dr. Manchester is aware, the only field oriented paleontological research program available to high school students in North America. Special emphasis is given to the paleobotany of the Tertiary of central Oregon, involving the collection and laboratory preparation of fossil leaves, fruits and seeds, and woods for professional research.

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THOSE OF YOU WHO LIKE ALGAE WILL REALLY LIKE THESE SPONGES--Dr. B. L. Stinchcomb, Geologist
4236 Ringer
Mehlville, Missouri 63129

Those who attended the MAPS auction heard Dennis Kingery embellish his enthusiastic auctioneering with this profound statement. Perhaps this bit of sarcasm directed toward seemingly much maligned sponges might seem appropriate to those unenlightened multitudes who have yet to find the real fascination in study of the "lower" life forms of algae, bacteria, protists and, of course, sponges. Fossil algae and sponges have to be loved too!

The recent MAPS exhibition auction included among its many delights, some 2.8 billion year old fossil algae (stromatolites). 2.8 billion years old folks--now that's old by anyone's standard. Lovers of trilobites, crinoids and other Paleozoic fossils look upon these beloved 450-220 million year old invertebrates as incredibly ancient, and somewhat uninformed articles on fossils will at times, refer to such as these as representative of the "beginning of life". Far from it! These unloved stromatolites made by blue-green algae go back vastly deeper into geologic time. For much of the earth's past, photosynthetic blue-green algae was the highest of life forms. Only during the late Pre-cambrian did multicelled organisms like annelids (worms), jellyfish-like organisms, sea pens and, of course, the sponges appear. Herein lies one of the fascinations of these primitive invertebrates, they are some of the earliest multicelled life forms (called metazoans, except for sponges). The later are separated because sponge cells are not arranged into organs as is the case with the metazoans. Once the soft bodied late

Dr. Manchester has been directing this program since 1976, but in recent years enrollments have been decreasing, perhaps because many students who would very much like to participate are unaware of the opportunity. The fee of \$500 for the 5-week program, is less than actual cost because of subsidy from the National Science Foundation. Substantial scholarships are available in cases of financial need through the Thomas J. Bones foundation of the Oregon Agate and Mineral Society.

If you know a young person who might wish to participate, please pass this information along. Please do not hesitate to give Dr. Manchester a call for more specific information (812-335-0038).

Pre-cambrian metazoan faunas appeared (Ediacarian fauna) it wasn't too many millions of years until animals with hard parts appeared and so commenced the Cambrian radiation event.

On the tables at the MAPS Exposition were some of the "fruits" of this monumental event in the history of life, the fascinating (one might say virtually irresistible fossils for a lover of algae and sponges) archeocyathids, Cambrian trilobites, monoplacophorans, hyolithids and other "experimental life forms" which appeared during the Cambrian, flourished, dwindled, and then promptly went extinct. Of these the trilobites almost always win, hands down, in a popularity contest among fossil affectionatos. Trilobites had eyes, even expressions on their otherwise bland little "faces", sponges and archeocyathids by contrast just seem to sit there and thus superficially seem to lack character.

In the eucaryotic cell of such seemingly "dull" organisms as sponges and protists did lie the "seed" which would in time lead not only to trilobites, crinoids and fish but to even "higher"

life forms like us. Sponges represent one of nature's attempts at creating a multicelled organism from the single cells of protists. The body plan of the sponges with its spicules and its arrangement of cells was definitely a good one. It survived till the present while other body plans such as that of the archeocyathids weren't so successful; archeocyathids have been extinct for over 550 million years.

It's not easy assembling a collection of these primitive fossils and when such a plethora of early fossil forms is available to see, trade, or purchase as was the case at the MAPS exhibition, one who has gone in quest of these early fossils will get excited. Next time you see a slab of Precambrian fossil algae or a Cambrian sponge, do give it some respectful consideration.

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BONES OF CONTENTION -- Sent by Lloyd and Frieda Gunther
28 North 2nd West
Brigham City, UT 84302

The dinosaurs were wiped out 65 million years ago when an asteroid smacked into the earth and kicked up a global dust cloud that plunged the world into cold and darkness. That's the most widely held theory...New evidence uncovered by a Notre Dame geologist suggests the dinosaurs survived the asteroid impact by at least 40,000 years.

Sifting through the badlands of east central Montana last summer, Keith Rigby, Jr., discovered the first dinosaur fossils ever confirmed to be younger than geological evidence of the asteroid impact. "Based upon the material we found, we believe that 70 per cent of the kinds of dinosaurs living at that time survived the asteroid impact," says Ribgy, who recently submitted his findings to Science.

According to the assistant professor of earth sciences, dinosaur extinction came with a whimper, not a bang; it was a gradual process that took at least six million years. "In our screen studies we find 200 dinosaur teeth per ton to begin with. Then there's a dramatic drop-off to 40 to 50 teeth per ton at the time of the impact, followed by a steady decline to about 20 teeth per ton.

"You can't explain the decline in terms of a single event. The asteroid obviously took out a bunch of dinosaurs--or at least the conditions of that time did--but clearly something was working against the dinosaurs well before and after the impact. The asteroid apparently exacerbated an already bad situation for the dinosaurs."

Here was an inhabitant of the earth which (if a sponge) is ancient or if an algal stromatolite, is super ancient; both have survived until the present. Sorting through tables of ancient, extinct and thereby by definition unsuccessful fossil life forms or by "interacting" with equally ancient sponges is one of the delights of EXPO. Certainly those who like the algae will also like the sponges!

PS Those of you who find sponges, algae and similar primitive fossils fascinating will enjoy the following essays by Steven Gould in The Panda's Thumb. No. 22, "Crazy Old Randolph Kirkpatrick" 23, "Bathybius and Eozoon" 24, "Inside a Sponge's Cell".

The fossil record shows a similar decline in the mammal population. But after the asteroid impact, the mammals either were unaffected or quickly reestablished themselves--in stark contrast to the dinosaurs, who never came back. "This suggests something else was working against the dinosaurs," says Rigby. He believes the likely culprit was a climatic shift caused by a global lowering of temperatures and sea level that began 80 million years ago and lasted for 15 million years. The environmental change killed much of the vegetation many dinosaurs fed on. If that wasn't bad enough, plant-eating mammals migrating from Asia competed with the dinosaurs for the remaining vegetation.

Oddly enough, Rigby's dinosaur discovery came about because of his interest in mammal fossils. He went to Montana last summer with an excavation crew...to gather fossils for a computerized taxonomy detailing the mammals' evolutionary changes.

A strange thing happened on the way to producing the taxonomy. "As we worked our way higher up in the section, we found a lot of dinosaur material in our deposits," he recalls. "This bothered us a bit. The stuff shouldn't have been there because of the age of the sediment." Rigby was working in deposits from the Paleocene

period; dinosaurs were thought to have become extinct during the preceding geological age, the Cretaceous, which ended 65 million years ago.

Analyses of fossil pollen mixed with the dinosaur deposits confirmed the material to be Paleocene. The studies, conducted at Rigby's request by Professor Karl Newman of the Colorado School of Mines and Professor Jan Smit of UCLA, independently validated the age of the dinosaur fossils. "That was the nail in the coffin, the clincher that we really had Paleocene dinosaurs," says Rigby. All told, the Notre Dame geologist found Paleocene dinosaur fossils at six area sites last summer. ..

Rigby's work has yielded another surprise: Evidence suggesting that the dinosaurs' habitat was more arid than commonly thought. "most

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Dear MAPS Members

On a recent trip to Colorado I was confronted with notices placed at campsites, trail heads etc. on national forest and BLM lands warning against the collection of fossils on public lands.

As I hope most MAPS members know, there has been for many years an ensuing debate with governmental land managing authorities regarding public paleontologic collecting on public lands. The issue has been whether and how fossils come under the 1906 Antiquities Act and has generally been resolved by the courts to cover vertebrate fossils but not invertebrate ones. The posted notices made no mention of the exclusion of invertebrate fossils in these prohibitions, rather it placed all fossils in which prohibitions against collection of archeological materials.

With respect to the 1906 Antiquities Act and even more so with the Archeological Resources Protection Act of 1979, the distinction between fossils and archeological materials is clear. Archeological materials are associated with man and culture; fossils, in the conventional geologic definition, are not (except with the relatively limited-in-time confluence of archeology and paleontology with fossil man).

The posted prohibitions were obviously archeologically motivated but would place apprehension

people have these creatures walking around in lush tropical forests, eating water plants in swamps and lakes. But we don't see that here at all," says Rigby. Fossils of skulls, for one thing, separate along suture lines indicating they were dried out, which would not happen in a swamp-like environment. If other evidence bears out his suspicion about the climate, it could someday prove more significant than evidence that the dinosaurs survived the asteroid impact.

--John Monczunski
NOTRE DAME NEWS

Keith Rigby, Jr. is the son of Dr. Keith Rigby, Sr., sponge authority at Brigham Young University. Father and son are doing more work together this summer in Montana.

on most persons including geologists under whose "domain" fossils come. There appears to be an effort on the part of some of the archeological community to co-mingle paleontology with archeology; once that is accomplished then perhaps to apply archeological collecting prohibitions to paleontological materials. The paleontological community (amateur and professional alike) should be cognizant of this and know that the vague 1906 Antiquities Act has been interpreted by the courts to include only vertebrate fossil material and that the Archeological Resources Protection Act deals specifically with archeological materials, defining an "archeological resource" as any material remains of past human life or activities which are of archeological interest.

Fossils do not come under this definition, and with the exception cited above are not the domain of the archeologists.

Bruce L. Stinchcomb
Geology Department
St. Louis Community College
at Florissant Valley
3400 Pershall Road
St. Louis, MO 63135

(Editor's comment--1) See MAPS Digest, December, 1985, Vol 8 Num 9. 2) A letter addressed to Dick Johannesen, dated February 14, 1986, states there is a "current study being conducted by the National Academy of Science (NAS)... However, it does not appear that the study will be finalized until mid-1987".

THE FUTURE OF FOSSIL COLLECTING ON PUBLIC LAND

by

Peter L. Larson

Many of you have been following the controversy over who may and who may not collect fossils on Public Land. You have watched several attempts by government agencies (such as the Bureau of Land Management) to promulgate regulations to define what may and what may not be collected. You have seen a Bill introduced in the United States Senate. Some of you have even written letters expressing opinions on how things should be handled. I would like to report on a new effort to gain a consensus among those people who are interested in paleontology, and particularly those people who actively collect fossils.

The National Academy of Science - Board on Earth Sciences has formed a "Committee on Guidelines for Paleontological Collecting". This committee was established to study the problems involved with the collection of fossils from the Public Lands. Upon completion of this investigation, a report will be issued which is intended to provide guidance to the various land management agencies who are responsible for the management of our Public Lands.

The committee consists of representatives from various persuasions within the paleontological and geological community. In addition to scientists the committee has nominated individuals who are to provide input from private industry and the amateur community. I have been nominated to this committee and I would like your help.

In order for me to best fulfill my duties on the committee I need direct input from amateur paleontologists. I would encourage each of you who are interested in the work of this committee to send comments or suggestions to the address listed below. Remember, this committee is considering questions related to Federal and Scientific policy for the collecting of fossils from your Public Land.

Peter L. Larson
Black Hills Institute
of Geological Research, Inc.
P.O. Box 643
Hill City, S.D. 57745

(Editor's comment--

(|||)

(|||)

3) There is still time for individual input. 4) Address your correspondence to your Congressmen, Peter L. Larson, a Mr. Carl Barna, Main Interior Building, Room 2661, Bureau of Land Management, Washington DC 20240. 5) In replying refer to 8270(341). 6) Write individually. One letter with many signatures is considered one letter.)

Please see letter next page by Peter L. Larson

(|||)

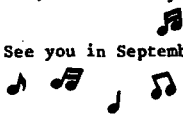
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MAPS Board of Directors thanks each of you for a simply super year. Your generosity in submitting articles and art work make our Digest special. Keep submitting your articles.

A special thank you to Harold Tichenor, 2440 W. Estes, Chicago, IL 60645, for not only suggesting a Table of Contents, but designing it.

Have a safe summer. Drive carefully and look out for the other guy. See you in September!



HERB & JANE TYLER
3514 Geele
Sheboygan, WI 53081
414-452-7823

Teacher. Major interest all fossils. We have been interested in fossils for many years. We wish to expand our collection and get more personal knowledge. We enjoy collecting as well as preparing fossils.

ANTHONY J. VERDI
1225 Ledge Rd
Hinckley, OH 44233
216-239-1245

High School Guidance Counselor. Will trade. Major interest all fossils. Has nothing to trade at this time.

STANLEY E. VOTRUBA
615 E. 12th, Apt. 105
Mitchell, SD 57301
605-996-1232

Retired Farmer. Collecting 30 years. Major interest mammal and marine reptiles from S. Dakota Badlands. If someone stopped may have fossils. Former geologist with U.S. Corps of Engineers. Written many articles. It would be an honor to be a member of such a worthy society and get to know the people who share such an interest.

FRED WESSMAN
4311 Annawood Circle
Spring, TX 77388
713-353-3412

Geophysicist Will trade. Major interest trilobites. Has trilobites for trade.

TOM WITHERSPOON
404 Covington
Crawfordsville, IN 47933
317-362-6520

Paleontologist. Will trade. Major interest crinoids and trilobites. Special interest Crawfordsville crinoids.

DR. ALBERT D. WRIGHT
332 S. Eighth St.
Monmouth, IL 61262

Please Update Your Membership Directory --

- STEVE ATKINSON 413 W. Humiston, Pontiac, IL 61764
 CARLOS & MARTHA BAZAN 512-366-2377
 DON BISSETT 513-868-7678
 H. (Rocky) BYROM 7600 S.W. Military Dr #103, San Antonio, TX 78227 512-675-0174
 PAUL & SHERYL CAPONERA 2536 78th St, Mesa, AZ 85205
 ROBERT CARROLL 3160 Williamsburg, Ann Arbor, MI 48104
 JOHN, KATHY & KRISTAN CATALANI 3405 High Trail, Woodridge, IL 60517 312-852-8747
 FREDERICK J. COLLIER Washington DC
 HARRY N. DOYLE JR. 9301 Briarwood Place, Fairfax, VA 22032
 RANDY & LINDA FAERBER 7854 Darnell, Lenexa, KS 66216 916-268-6786
 FRED W. PASS 1231 E. Singer Circle, Milwaukee, WI 53212
 ALBERT HARTMAN Box 96, 301 Hartmen St., Waterloo, IL 62298-0096
 R. W. HEINISH 7405 S. Woodward D-211, Woodridge, IL 60517
 DR. RICHARD & MIRIAM HOOVER 7706 Teal Dr, Huntsville, AL 35802 205-881-5633
 DAVID HUTCHISON FAMILY 44 S Westmoreland, Munster, IN 46321
 ANNE MCKISSY (nee Burleigh) 2319 Lorraine Ave, Kalamazoo, MI 49008 16 345-0728
 MARK MCKINZIE 3535 N. St. Charles #89, Oklahoma City, OK 73122 405-946-1565
 MICHAEL OLSON 229 Andover, Springfield, IL 62704 (same phone)

- MRS. KEITH PALMER Orem, UT
 CHARLES & VIRGINIA PETERSON Rt. 9, Box 143, #20 Haystack Acr, Columbia, MO 65202
 SHARON POWELL & KATHLEEN MORNER River Forest, IL 312-366-7128
 RICK POROPAT Clayton, MO
 GARY RUDOLPH 9415 Chesapeake Dr, North Royalton, OH 44133
 MR & MRS ROBERT C. SCHACHT

Please Add The Following New Members to Your Directory -- A HEARTY WELCOME TO EACH OF YOU!

- MARC AUJE (Sorry, this is a correction, not a new member. Note the name inversion.)
 136 W. Rousseau - 08500
 Revin
 FRANCE
- GEORGE RAE Design Engineer. Collecting 30 years. Major interest trilobites and brachiopods from Silurian & Carboniferous of Scotland. Will trade. Wants to make contacts with Americans. Occasionally visits USA on business in Chicago Texas, and St. Louis.
 9 Strathanmond Green
 Barnton
 Edinburgh EHr BAG SCOTLAND
 UNITED KINGDOM
- KAREN WEINHOLD Drilling Secretary. Will not trade, but will give away if anyone has a special request. Likes all fossils. Karen is interested enough to make the journey from Canada to MAPS Spring field trip. She says they left 7 ft. of snow behind in Calgary.
 712 - 78 Avenue N.W.
 Calgary, Alberta
 CANADA T2K 0S5
 274-3576
- DONALD R & BETTIE L. ALLEN Tax Examiner -- Acctg. Tech. Will trade. Manor interest ammonites and echinoids. Has Texas material for trade. Interested in fossils and meeting other individuals with the same interest. Pres. Austin Paleo Soc.
 8310 Roan Lane
 Austin, TX 78736
 512-288-3163
- CHARLES M. BAKER Retired Electronic Engineer. Will trade. Major interest invertebrate Pennsylvanian material. Has same for trade. Wants to meet other fossil collectors.
 RR 1
 Ozawkie, KS 66070
 913-484-2550

ROGER E. BOHN
25644 Devonshire Ln
Glen Ellyn, IL 60137
312-858-2956

Commonwealth Edison & Co. Will trade. Major interest
Mazon Creek.

JAPHETH B. BOYCE
4350 Cliff Drive
Rapid City, SD 57702
605-342-9548

Accountant. Will trade. Major interest vertebrates,
exception ammonites. Has Badlands (White River) material
and Cret. ammonites.

ROBIN C. BROWN
2626 Shriver Drive
Fort Myers, FL 33901

ROBERT W. BURMEISTER
1712 Coral Sands Court
Venice, FL 33595

Mason. Will trade. Major interest echinoids and plant
fossils. Has a few fossil crabs, shark teeth, sand dollars
whale bones for trade. Wants to meet others who love fos-
sils and like collecting them and wants to expand collec-
tion and learn more about fossils.

DAVID CASSEL
1111 Brommer St.
Santa Cruz, CA 95062
408-479-1444

Teacher. Will not trade. Major interest Mexican fossils.
(This an old member -- welcome back!)

WINSTON CRAUSAZ
Dept. of Geology
Southwest Mo. State Univ
Springfield, MO 65804
417-836-5687

Mineralogist. Will not trade. Major interest trilobites.
Wants information, and to meet people with similar interests.
(My apologies, Mr. Davy, I put you in the wrong spot. I
should have included you with our friends from overseas.
Welcome!)

KEVIN E. DAVY
89 Stanley St
Wagga 2650 N. SW
AUSTRALIA
069-226509

Geology Lecturer. Will trade. Major interest fossil
molluscs especially gastropods and ammonites. Does not
have much for trade. Wants to be more informed about
midwestern paleontological activities.

MICHAEL FIX
10611 Jesskamp Dr
Ferguson, MO 63136
314-867-8392

Free Lance Paleontologist. Will trade. Major interest
trilobites of all ages. Wants to meet new people.

THOMAS T. JOHNSON
P.O. Box 28
Morrow, OH 45152

Attorney--Wife & Mother. Will not trade. Major interest
all types of fossils, collecting, field trips. Wants to
meet other hobbyists to learn, share, and field trips.

LEON & MARILYN B FRIEDMAN
1372 Luddington Road
East Meadow, NY 11554
516-486-3197

JAMES HICKNER
10914 Acton
St. Louis, MO 63123
312-892-8644

Cartographer. Will trade. Major interest trilobites,
echinoderms, Paleozoic + Mesozoic molluscs, corals.
Wants to become acquainted with other fossil collectors.

HAL HOBERECHT
1454 Rockville Rd
Suisun, CA 94587
707-864-1051

Teacher. Will trade. Major interest geology, fossils,
Ice Age, Anthropology, Archeology, Photography. Has sling
shots from Clear Lake, CA. Tektites from Thailand, Casts.
Wants knowledge.

ALAN HOROWITZ
Curator of Paleontology
Department of Geology
Bloomington, Indiana 47405
812-335-3536

Dr. Horowitz had submitted several articles to MAPS Digest.

JOHN M. KELLEY
P.O. Box 23705
Milwaukee, WI 53223
414-354-7656

Building Services Manager. Will not trade. Major interest early plants, taxonomy (Philosophy of Science), bibliography, identification. Inadvertently allowed MAPS membership to elaps, have loved fossils all my life.

RICHARD KEYES
3208-C Village Dr.
Huntsville, AL 35805
205-882-2171

.Will trade. Major interest. Paleozoic fossils. Has Upper Mississippian fossils from Huntsville area for trade. (Former member, welcome back!)

RUTH & SAM KIRKBY
7701 Mission Blvd.
Riverside, CA 92509
714-685-5025

HERBERT KNODEL
Neisseweg A
3210 Elze 1
W. GERMANY
49-05068-670

Government Employee. Will trade. Major interest Jurassic fossils. Has fossils from West Germany. (Welcome, Mr. Knodel. You are mixed in with our USA friends, also. You will be in the right spot when the new membership directory comes out.)

LANG'S FOSSILS
Allan Langheinrich
326 Manor Avenue
Cranford, NY 07016
201-276-2155

FRED H. LINDBERG, Ph D.
136 South Washington
Casper, WY 82601
307-237-4550

Psychologist

THOMAS LINDGREN & ASSOCIATES
562 229th Ave N.W.
Bethel, MN 55005
612-753-4767

Commercial Fossil Fish Quarry. Will trade. Major interest fossil fish, trilobites, crinoids. Has fossil fish for trade. Wants to trade, sell, buy.

ZARKO LJUBOJA
2707 Rt. 307 East
Jefferson, OH 44047
216-858-2366

Geologist. Will trade. Major interest Paleozoics--micro to macro. Has many varieties for trade. Why become a member?--FOSSILS!

GARY LOVESTED
2100 3rd St B
East Moline, IL 61244

BOB MATHAS
18896 Hunters Pointe
Strongsville, OH 44136
216-238-1491

Manager--Health Care Consulting. Wants access to additional fossil information, etc.

JOHN MEFFORD
206 Hyde St
Windsor, MO 65360
816-647-2736

Student. Wants to acquire a collection representative of the age of the rocks in his own area.

MID-LAND SCIENTIFIC SERVICE
P.O. Box 601
Stryker, OH 43557

Scientific Supply. Will not trade. Joines for the study of Paleontology and to see more people become aware if it.

RON MORIN
2016 Wedgewood Lane
Carrollton, TX 75006

MARK K & LAUREEN C RAASCH
809 Crescent Lane
Hartland, WI 53029
-367-5698

PAUL L. RICHMAN
4717 Tantra Dr
Boulder, CO 80303
303-538-4072

Computer Science. Will trade. Major interest trilobites and ammonites. Has small enhophites (Ed. can't find this can find eoscaphites) from Gault, England that are superb!

PATTY RODRIGUEZ
Box 763
St John Fisher College
Rochester, NY

Student, minor Paleontology.

TODD ROSENSTIEL
849 N. Silherman Rd
Pearl City, IL 61062
815-443-2549

Student. Very much interested in Paleontology. Plans to pursue this field in college.

William R. SCHURMANN
15315 Sterling Lake Dr.
Houston, TX 77095

MARK R. SHURILLA
1979 N. Oakland Ave
Milwaukee, WI 53202
414-272-4980

Newspaper Editor. Will trade. Major interest trilobites, arthropods, vertebrates, bizarre fossils. Has Wisconsin fossils for trade. (Former member--welcome back!)

JOAN S. SULSER
Box 212
Montpelier, IA 52759

RICHARD S. TODD
406 South Finley Rd.
Lombard, IL 60148
312-629-6484

Facilities Manager. Will trade. Major area of interest Silurian. Has a few trilobites for trade. Wants to share information and collecting localities.

SR. JEANNE MARIE TORISKIE
3121 E 131 St
Chicago, IL 60633
312-646-1929

Grade School Principal. . Major interest trilobites.

M. LEONA TRAINER
1294 Richard Rd.
Skaneateles, NY 13152
315-673-4634

Retired. Will trade. Major interest invertebrates--echinoderms. Has New York state fossils for trade. Joined for some trading, to see others' collections and to collect when traveling.



FOSSILMANIA IV

FOSSILMANIA IV Will be held at Oakdale Park, Glen Rose, Texas on October 24, 25 & 26, 1986. Only fossil and fossil related items.

HOURS: Friday October 24 1:00 p.m. to 6:00 p.m.
Saturday October 25 9:00 a.m. to 6:00 p.m.
Sunday October 26 9:00 a.m. to 3:00 p.m.

LODGING: Trailer Sites \$10.00/night (full hook-up)
Tent Sites 7.50/night
Cottages* 26.00/night (1 double bed/linens furnished)
31.00/night (2 double beds/linens furnished)
36.50/night (3 double beds w/kitchen facil.no linens)

*All cabins are air conditioned and heated. There is a 2-day minimum requirement on all cabins. A List of motels and RV sites are listed below for your information.

MEALS: There are several cafes in town. Fossilmania will sponsor a **Potato Bust** on Friday night at 6:30 p.m., and a **Texas BBQ** on Saturday night at 6:30 p.m. Breakfast will also be served on Saturday and Sunday, consisting of scrambled eggs,bacon/sausage, toast and coffee. (We will need a minimum of 20 for this service.)

EXHIBITS: Let us know if you intend to bring an exhibit. Tables will be provided free. Let us know dimensions of case and any electrical requirements.

TABLES: Tables will be assigned on a first-come, first-served basis. The cost is \$8.50 for a 6-ft. table for the entire weekend. Reduced cost basis for partial days will be available, if tables are not already reserved.

FIELD TRIPS: No field trips will be sponsored during the show. However, information will be available for trips in the local area.

AUCTION: We would like a donation of one nice fossil specimen for the live auction to be held Saturday night after the BBQ. Please provide full data on the fossil and the name of the donor.

RESERVATIONS: Everyone should make advance reservations as soon as possible, but no later than September 30, 1986. All cabins not reserved by September 30 must be released back to Oakdale Park. Please separate the reservation form below and send to **Joan Crane, 1603 Twilight Ridge, Austin, TX 78746.** Make checks payable to the "Austin Paleontological Society". For additional information and questions, you may also call (after 5:30 p.m. CDST) 512/327-4005.

MOTELS/RV SITES:
Glen Rose Motor Inn Highway 67 817/896-2940 From \$38.00
Glen Rose Motel Highway 67 817/897-2635 From \$37.00
Dinosaur Valley State Park - From Texas 67, FM 201 east 4 mi; Park Road 59 east 1 mi. Entrance \$2.00. Wheeled Camper Sites: \$6.00. Primitive Camping: \$4.00. Box 396, Glen Rose, TX 76043. 817/897-4588.

SECURITY WILL BE PROVIDED -- BUT WE CANNOT BE RESPONSIBLE FOR LOST OR STOLEN ITEMS

NAME _____ PHONE () _____

ADDRESS _____ CITY _____ STATE _____ ZIP _____

***COTTAGES 1 Double Bed @ \$26.00/night, linens furnished \$ _____
2 Double Beds @ \$31.00/night, linens furnished _____
3 Double Beds @ \$36.50/night, no linens, w/kitchens _____

***When making reservations for cottage accommodations, please indicate which nights.

CAMPSITES: Trailer Sites @ \$10.00/night \$ _____
Tent Sites @ \$ 7.50/night _____

BREAKFAST \$ 3.75 per person -- each day _____

POTATO BUST \$ 4.00 per person _____

TEXAS BBQ \$ 8.00 per person _____

COMBINATION BBQ/POTATO BUST \$11.00 per person (save \$1) _____

Total enclosed \$ _____

EXHIBITS: Do you plan on exhibiting? Yes _____ No _____
Size of case _____ Electricity: Yes _____ No _____

The Mid-America Paleontology Society (MAPS) was formed to promote popular interest in the subject of paleontology, to encourage the proper collecting, study, preparation, and display of fossil material; and to assist other individuals, groups and institutions interested in the various aspects of paleontology. It is a non-profit society incorporated under the laws of the State of Iowa.

Membership in MAPS is open to anyone, anywhere who is sincerely interested in fossils and the aims of the Society.

Membership fee: December 31 through December 31 is \$10.00.

MAPS meetings are held on the 1st Saturday of each month (2nd Saturday if inclement weather). September, October, May, June and July meetings are scheduled field trips. The August meeting is in conjunction with the Bedford, Indiana Swap. November through April meetings are scheduled for 2 p.m. in the Science Building, Augustana College, Rock Island, Illinois. One annual International Fossil Exposition is held in the Spring.

MAPS official publication, MAPS DIGEST, is published 9 months of the year--October through June.

President: Karl Stuekerjuergen, Rt. 1, West Point, IA 52656
 1st Vice President: Gil Norris 2623 - 34th Avenue Ct, Rock Island, IL 61201
 2nd Vice President: Doug DeRosear, Box 125, Donnellson, IA 52625
 Secretary: Jo Ann Good, 410 N.W. 3rd Street, Aledo, IL 61231
 Treasurer: Marvin Houg, 3330 44th St., N.E., Cedar Rapids, IA 52402



CYATHOCRINITES

MID-AMERICA PALEONTOLOGY SOCIETY

Mrs. Madelynn M. Lillybeck
 MAPS DIGEST Editor
 1039 - 33rd St. Ct.
 Moline, IL 61265

Dated Material - Meeting Notice



FIRST CLASS MAIL

Allyn & Dorris Adams
 612 W. 51st Street
 Davenport, IA 52806