

Official Publication of Mid-America Paleontology Society Volume 9 Number 9 December, 1986



Three baby dinosaurs get a new look at an Old World MAPS Member Guy Darrough 3619 West Maline, St. Louis MO 63121

December, 1986

MARK YOUR CALENDARS

- 6 Dec MAPS MEETING Augustana College, Fryxell Museum, Rock Island, IL
  - 9:30 Board Meering Maddy's House "New Fossil Reptiles & Amphibians of Antarctica". Dr. William Hammer of Augustana College will be guest speaker.

The public is invited.

10 Jan MAPS MEETING Augustana College, Fryxell Museum, Rock Island, IL

Please note the late date

- 1:00 Board Meeting
- 2:00 A Dinosaur Dig Dick Johannesen Curator Augustana Fryxell Museum, Rock Island, Illinois
- 7 Feb MAPS MEETING Monmouth College Geology Department, Monmouth Illinois
  - 1:00 Board Meeting 2:00 Dr. Larry Wiedman and students

24 Apr EXPO IX. Western Illinois University Macomb, Illinois START PLANNING!!

## <u>ADVERTISING</u> <u>SECTION</u>

Ads \$3.50 per inch (6 lines). Send information and checks payable to MAPS to: Mrs. Gerry Norris, 2623 - 34th Avenue Ct., Rock Island IL 61201 Phone 309-786-6505



For \$89.00 postage paid, I'll send you one good sized Wolly Mammoth molar AND one good sized modern African Elephant molar. As a pair they make quite a display. For lightning fast service send a M. O. to:

> Richard McCoy 1119 Michigan Avenue St. Joseph, MI 59085

> > 15

DUES ARE DUE - - \$10.00

Make Checks Payable To MAPS And Send To:

Marvin Houg, Treasurer 3330 44th St., N.E. Cedar Rapids, IA 52402

ABOUT THE COVER -- "Three baby dinosaurs get a new look at an Old World" we thought would be an appropriate caption for the ornithominids pictured here. Goy found the arm bones of this species while collecting (the Cretacious) in Montana (1985). Upon inspection of the cleaned bones scars were found from the teeth of a tyrannosaurid. There are dinosaur eggs found in Montana but no eggs were found on this trip.

> Guy Darrough is self-employed. His major interest is Lower Ordovician and dinosaur material. His collecting site is in a wilderness area in Missouri. He collects unusual fossils many of which have yet to be described, from the fauna of the Ozarks on a border of Upper Cambrian and Lower Ordovocian. This ancient rock of the Gasconade Fm. has a very distinctive appearance. It contains a rich molluscan fauna.

Many thanks for your beautiful art work, Guy. (Cover Copyrighted)

December, 1986

Find a part of nature that speaks to you. Then know it intimately and well. For some it is a mountain peak. For some a windswept beach. Find your own and in it your restoration.

-- Unknown

FOR YOU TO READ

Colorado at Boulder.

When friends meet, hearts warm.

MAPS Board of Directors



SEDIMENTARY NOTES

They call it Fossilmania and it turns out that's no misnomer.

FRANK CRANE, Dallas Texas TOM WITHERSPOON, Dearborn, MI

Originally Frank intended to go to an art show the weekend of Fossilmania. He got that taken care of early and arrived at Glen Rose.

You'll have to see those two for full details. but Tom drove home in an empty Cadillac and Frank's collection includes many more of those awesome Crawfordsvill crinoids.

\* \* \*

And then there was DOUG DEROSEAR, Donnellson, Iowa.

He bought a trilobite. It was the third time he bought that particular trilobite. It's true. It looked better the 3rd time, he said.

Has anyone figured the exponential figure for Round 4?

\* \* \*

MIKE MCKEIZIE. Oklahoma City, Oklahoma.

. . .I attended my first fossil show last month at Glen Rose, and I loved it. Luckily I was broke to start with or I would probably be in jail right now. I love this organization.



AUDOBON, November. "The Ptink Pterodactyl" by Robert T. Bakker. The article is excerpted from <u>The Dinosaur</u> <u>Heresies: New Theories Unlocking the Mystery</u> of the Dinosaurs and Their Extinction, published by William Morrow and Company, Inc. Bakker, who has taught everything from kindergarten to graduate seminars, is adjunct curator for the museum at the University of

In the same issue -- "Ancient Seas and Creatures Images from another, Distant Era" Photography by Thomas A. Wiewandt.

Some would call the plates 'pretty pictures'. They surely are that, and then examine the places where they were photographed, you can know the land and the people who went collecting with you, and who are your friends because of MAPS.

See a trilobite from Utah, and one thinks of Gunthers; another trilobite from Ontario and one thinks of John Iellamo. But whoever thinks of an <u>Isotelus</u> without thinking of Dan Cooper; a <u>Dicranurus elegantus</u>, Arbuckle Mountains, Oklahoma and --Harrell Strimple, Allen Graffham, and Mark McKinzie. Harrell wasnt' associated with trilobites, but surely with Arbuckle. 4 pages of cephalopods from South Dakota, so many MAPS friends pop into mind. A eurypterid from New York and John Rivers, and those crinoids from Montgomery County, Indiana, and Bob Howell.

page 3 How lucky we all are.

December, 1986



SOMETHING NEW HAS BEEN ADDED

The Collinson Quarry at Milan, Illinois has long been noted for the fine Devonian trilobites and corals found there: <u>Phacops</u>, <u>Proetus</u>, <u>Phillipstraea</u> and <u>Zaphrentis</u>. And an occasional blastoid, <u>Nucleocrinus</u>. But now an additional fossil of interest to collectors can be added to this list.

Over the past year an Augustana College geology major, Bill Hickerson, has uncovered a considerable quantity of the gastropod Platyceras. At least four separate species have been found: <u>Platyceras unguiforme</u>, <u>P dumosum</u>, <u>P niagarense</u>, and <u>P parvum</u>. Also a tightly coiled Tropidiscus curvilineatus.

Of the four <u>Platyceras</u> noted, <u>P</u> unguiforme is the most widely spread throughout the Cedar Valley Formation. One specimen was recovered from very close to the top of the Rapid Member; four more were collected from strata at the base of the same member; and one specimen with four spines still attached was collected from the topmost level of the Solon Member. In addition to the foregoing, four specimens of <u>Tropidiscus curvilineatus</u> were collected from the base level of the Rapid Member.

These five species of gastropods, a total of twenty-one specimens, have been added to the display and study collections of the F. M. Fryxell Geology Museum at Augustana College and can be seen for reference and identification purposes by any member of M. A. P. S. who comes to the museum.

Gastropods are the most abundant in the thin shaly layers between the massive limestone in the lower Rapid Member and the Upper Solon Member, a vertical distance of only some ten or twelve feet. Between these members gastropods occur in very small numbers.

Good hunting!

Dick Johannesen, Curator Fryxell Geology Museum

December, 1986

**DINOSAURS ANYONE?** 

MAPS Member Dick Johannesen 2708 34th St., Apt 1 Rock Island, IL 61201



Just mention "dinosaurs" and everyone comes to attention. These strange beasts seem to have a way of grabbing our interest whether we are six or sixty. So when the possibility of actually taking part in a dinosaur dig came along I jumped at the chance.

"EXCA-VACATIONS" - that's how the letter was headed, with a little T-rex close beside it. "Come and spend eight days with us in the north-west corner of South Dakota digging for dinosaurs". What more could an amateur paleontologist hope for? I wrote, answered a detailed inquiry and resume form, sent in a deposit, and was accepted for the last dig of 1986.

So on August 16th I flew to Rapid City to meet the rest of our crew. Nine of us (the group can be as large as twelve) met at the South Dakota School of Mines geology museum for a short briefing on what we were about to undertake. Dr. Philip Bjork, vertebrate paleontologist and director of the museum, was our leader. After his explanation of what we could expect, a tour of the museum was next in order, with particular emphasis on the skulls of Tyrannosaurus rex and Triceratops, and the complete skeleton of Edmontasaurus they have on display. And we made a visit to the "Big Bone Room" too: the room then contains the plaster jacketed specimens recovered by dinosaur dig groups preceding ours. All of this reinforced the information we had acquired in reading the textbook furnished to each dig member before coming to Rapid City, the 1985 version of "The Illustrated Encyclopedia of Dinosaurs: by Dr. David Norman.

We were a varied group: A young Italian housewife from New York City; the owner of a paint and wallpaper store in Kansas, also a housewife; a young Jewish couple from Staten Island, New York (a teacher and a school psychologist); a retired state police radio dispatcher from southern Michigan; another young housewife, from North Dakota; and myself from Rock Island.Plus Dr. Philip Bjork, and Judy Antior, our house mother, cook, and laundress. And she's a good cook!

So by mid-afternoon our van headed north to our destination, Zeona, population two! Our home-away-from-home was an abandoned farmhouse, five miles from Zeona, out in the middle of no-where. And considering the location, it was quite comfortable, with electricity and running water for showers and toilets, but no heat.

Seven-thirty the next morning we were off and running. A fifteen minute drive from the farm brought us to the Jack Ruby site, our working area for the next week. The north-west corner of South Dakota is rolling grassland with many large and small buttes scattered here and there. Ours was one of the smaller buttes, some twenty-five to thirty feet high. The overburden had been bulldozed away from an area about forty by one hundred feet in size. That particular morning the site contained six or eight small pits dug by the group ahead of us plus a similar number where the pit was covered by heavy plastic and a thin layer of dirt, all locations where bones had been discovered. Dr. Bjork passed out our working tools and assigned areas of work.

The tools were not what you might expect: no hammers, no picks, no chisels, no shovels. Each of us received a half inch paint brush, a three inch paint brush, a small pointed trowel, and an eight inch needle in a handle. That's all --- nothing more was to be used.

We had a foot or two of sandy overburden to work through to get down to the bonebed. Below the bonebed was a layer of blue clay. The bones we were after were all mixed up in a layer of tumbled river rocks, from small pebbles to fist-sized stones, cemented together by a red-brown limonite precipitate. This type of matrix made the recovery of the bones a slow and painstaking process. We all needed patience in the large size dose! All the specimens we collected showed much evidence of water wear. Study of the site indicated a past movement of the bones by water until they were deposited in the bend of an ancient river or stream.

December, 1986

But find bones and recover bones we did! Edmontosaurus, Anatosaurus, and Albertosaurus remains were present. Also Aublysodon, a meat-eater similar to Gorgosaurus, and a small ornithopod, possibly Thescalosaurus. Remains of Triceratops have been found but are a rare element of the fauna. (I found the only Triceratops specimen recovered during our dig, a seven inch by ten inch piece of the frill). We also turned up three teeth, two about three quarters of an inch long and one about two inches long, all possibly from Tyrannosaurus or Albertosaurus. Some plant remains have also been found at the site but no invertebrates. The plants include Jensensispormum seeds and Metasequoia cones.

The ratio of carnivores to herbivores is one to five, based on present finds. Individual bones are not usually intact, with no articulation, and show much evidence of water wear. But the humerus of one hadrosaur did contain bite marks, evidence of predator or scavenger activity long, long ago. Almost all the remains are from bipedal hadrosaurs, duckbills.

We enjoyed (?) all kinds of weather: bright and sunny to rain-out; ninety degrees one day, 100 degrees another, and forty-nine another! And wind continuously. If you're in the Port-a-Potty the sound of dust and dirt hitting the walls is a continuous tattoo. So we needed warm weather and cold weather clothes, including a good windbreaker.

Would I go back again? You bet! If this sounds like the sort of experience you would enjoy write to Exca-Vacations, P. O. Box 4261 Rapid City, South Dakota 57709.

GOOD HUNTING!



DINOSAURS AND LEVELS OF INTELLIGENCE

MAPS Member Mark G. McKinzie Oklahoma City, Oklahoma

This editorial is an exercize in creative thinking, and is not meant to be an authoratative or workable scientific hypothesis. My only intention is to stimulate the intellectual juices in us all.

Recent discoveries of the last few years are making it apparent the "terrible lizards" appear more and more like mammals in behavior patterns than their modern reptilian contemporaries. Not only were they warm-blooded, but they behaved like mammals, too.

For example, hadrosaur fossil finds in Montana indicate strong parental protection of young, and strong herding tendencies of the large herbivores. It does not take too much imagination to picture large herds of hadrosaurs led by dominant "bulls" sweeping across the Mesozoic plains. It would be comparable to the once-vast bison herds that ranged the Great Plains of the central United States until the last century.

And following these herds would be the smaller carnivorous dinosaurs waiting for a chance to isolate the aged, or the weak, or the young for the kill. Much like the coyote or wolf packs that followed the mighty bison herds. Or the hyena packs stalking wild beast herds on the Serengetti Plains of Africa. I always think of the solitary, and ferocious Tyrannasaurus rex, chasing down anything that moves, when I picture dinosaur carnivores. But is it not possible that the smaller predators worked in co-ordinated groups, stalking their prey together?

What of our own ancestors of say 5 million years ago? How far removed do these early proto-humans seem from modern-day <u>Homo sap-</u> iens? More like apes than men. Yet they did walk upright, and possibly used primitive tools to a limited extent. Is it possible that there was an emerging reptilian "primate" on the landscape at the end of the Cretaceous? And if there was, how would we know?

First of all, it was probably small (under two meters?), walked up-right on hind-legs (and probably with a tail for balance), welldeveloped fore-limbs, binocular vision, an omnivorous appetite, and a small to moderate brain. Are there any Cretaceous dinosaurs that fit the bill? I do not nknow.

For the sake of argument let's say there were. And what if they used tree limbs to gather fruits and/or nuts from trees out of their reach by using the sticks as clubs. Or used slender sticks and twigs to reach

December, 1986

# 

insects inside the boreholes of trees or in mounds. Modern day monkeys do this exact thing. Or what if they used stones to crush nutshells to get to the food inside. What evidence would be left to tell the tale? The dinosaurs ruled our planet a long, long time, much longer than us. Surely enough time to develop some level of rudimentary intelligence. It is an interesting concept, but unfortunately one that will probably never be conclusively proved.

 $( \ Q \ Q \ Q )$ 

GASCONADE TRILOBITES

MAPS Member Bruce L. Stinchcomb Mehlville, MO 63129 The nicest things come in small packages, or so as children we were often told. I've always had a fascination with fossils from the Ozarks of Missouri and Arkansas, particularly the Pre=Cambrian, Cambrian and Lower Ordovicianfossils which seem so hard to come by.

As a budding geology student in the early 1960's I got my first look at an extensive collection at the Missouri School of Mines (now University of Missouri--Rolla). Here were all sorts of neat primitive mollusks, loosely and sinistrially coiled snails, monoplacophorans, ellesmeroids, and other early cephalopods but few trilobites, yet the Cambrian and Lower Ordovician was supposed to be the "heyday" of trilobites.

One formation, the Gasconade, was particularly intriguing. It had enough fossils to be interesting, but was not so loaded as to become tiring, and it cropped out just west of Rolla so that not having a car I could bum a ride with some student going to this hinterland to hunt rabbits or target practice.

Gasconade cherts in time yielded their treasure of primitive mollusks but where were the trilobites? A year later thin chert beds east of Rolla yielded some trilobites-they were small cephalons, covered with little bumps or warts sort of like on a toad. This horizon I found out, was above the fossiliferous horizons which yielded the mollusks and straddled the boundary between the Gasconade and overlying Roubidoux Formations. But here at last were trilobites, although none were whole.

As all MAPS members know, trilobite collectors want complete specimens! A cephalon or pygidia pair is not enough, they want complete trilobite specimens. Now this is fine if you're collecting Elrathia, Asiphiscus, Calymene or Phacops. Some thirty or so genera of trilobites can fairly readily be obtained or collected as complete specimens. Beyond this however, the going gets rough for the collector who insists on complete

trilobite specimens. Trilobites come in a bewildering variety. They, like their arthropod cousins the insects have done much later, underwent an incredible amount of speciation during their 300 million year reign on the Earth. This diversification produced many trilobite types, so many that new ones still turn up in the primary literature of paleontology. One who wants to get as much of this diversity as possible has almost always to resign himself to being satisfied with partial specimens--and some of these are odd. So was the case of the little bumpy-nosed trilobites from near the very top of the Gasconade Formation, no complete specimens, but what was there was odd. But what about the other 95% of the Gasconade--no trilobites are reported from this part of the Formation.

Except for the plates!

While doing undergraduate work at Rolla and later at Washington University I acquired the nickname of "the spook" due to my constant inhabiting dark collections cabinets and fossil data files from previous paleontologists. One of the intriguing, things which turned up at University of Missouri--Rolla were turn-of-the-century glass negativeschuck full of all manner and sorts of Ozark fossils, some of which I'd never seen the likes of before.

During the early part of this century, geologic exploration of the Ozark massif was undertaken on a fairly large scale for the time by members of the Missouri Geological Survey and the Geology Department of Missouri School of Mines. What made this endeavor feasible was, of course, Mr. Ford's marvel of mass assembly, the Model-T.

page 7

## 

With the automobile, extensive field work became possible in parts of Missouri which before had for one reason or another been geologic "terra incognito".

One of these areas because of its remoteness and ruggedness, was Shannon County. This area of what is now the Ozark Scenic Rivers of the Currentand Jack's Fork River Area yielded a fauna of fossils unlike that known from anywhere else. It was a fauna rich in trilobites and mollusks. The formation which yielded these fossils was named the Eminence after the town of Eminence near Current River. Studies of this and other Ozark faunas led a geologist of the USGS, E. O. Ulrich, to propose a geologic period presumably unrepresented in other parts of the world. Ulrich and colleeagues in Missouri gave the name Ozarkian Period, a "new" geologic period between the Cambrian and the Ordovician (consider that the Ordovician Period wasn't named until the era of Gibson girls and bicycles, the 1890's).

Many of the glass negatives had been prepared to support Ulrich's proposed Ozarkian Period. Most of the fossils on the negatives were eventually illustrated and described, but not all of them. On one of the plates are Gasconade trilobites, different from any we've collected and never published in the literature. The actual specimens probably reside in the U. S. National Museum (The Smithsonian Institution), along with many other fine fossils. These Gasconade trilobites eventually need to be investigated! We've since collected extensively from the Gasconade Formation over much of the Ozark area, not an easy feat as the Formation covers a large part of the Ozarks and because of the extensive relief there is a lot of outcrop area to search. (It's been said that if you flattened out the Ozarks of Missouri and Arkansas and spread it out it would be larger than Texas ?)

All of this collecting, some 20+ years worth, has produced only a small number of trilobite cephalons and pygidia. I've never seen a complete specimen, and I'll wager that I've seen more Gasconade trilobites than any other person on this planet or any other one for that matter.

Why would anyone want to be interested in somthing so rare as Gasconade trilobites. For one thing they are rare! Rare things of any sort hold a fascination for many people and this includes rare fossils (which don't always have to be showy). Years of collecting and breaking probably tons of chert boulders and masses has produced a residue of eight trilobite specimens which fit, afte preparation, nicely into a small black box. Eight small trilobites which represent four species, probably new ones, as no trilobites are "in the literature" from the Gasconade Formation. (The bumpy nosed ones (Hystricurus) from the very top of the formation which in earlier days of Ozark collecting were found to be fairly common is an exception to this).

The Gasconade trilobites will have to be compared with an extensive trilobite fauna described from the Garden City Formation of Utah, part of which is of the same age as the Gasconade Formation. If the Missouri specimens aren't there then they are probably new species or new forms. This has yet to be done!

≬≬)

2

.1

FOSSIL FOREST DISCOVERED IN HIGH ARCTIC

by Gerald Volgenau Knight-Ridder News Service

Barren, snow-swept Axel Heiberg Island in the High Arctic is perhaps one of the last places on Earth to look for a forest.

Certainly, the island has no forests now. The sight of even a single tree is unthinkable in this place 700 miles from the North Pole, where the cold can kill in minutes and the pitch-blackness of winter nights goes on for months. Even the island's sparse, low-lying vegetation barely can survive.

So it came as a surprise to helicopter pilot Paul Tudge, who was working on a geological survey last year, when he spotted what looked like the remnants of a forest.

On the slope of a 300-foot hillside just about on the 80th parallel, he saw what appeared to be a scattering of tree stumps and hefty logs covering more than a square half-mile. Last summer, University of Saskatchewan paleontologist James Basinger went to investigate.

What he discovered was a 45 million-yearold fossil forest.

#### MAPS DIGEST

#### Volume 9 Number 9

# 

"There were very old reports from the 19th century of fossil plants and coal reserves in the High Arctic," Bassinger said. . ."The important part (of this find) is the extent of it." Basinger found hundreds of stumps and many big logs, some more than 1½ feet in diameter and 30 feet long, as well as fossilized conifer needles, broad leaves, pods and walnut-like fruits.

Sifting through the remains, Basinger realized he had found not one forest but 19 forests layered on top of each other. "It was absolutely remarkable," Basinger said. "I had never seen a sight like it before--so many stumps and logs so beautifully preserved. Many of the stumps are rooted where they grew. This allows you to really begin to reconstruct the ancient environment, which you can't necessarily do by looking at a few fossils."

This was a lush subtropical forest, much like today's Cypress Swamp in the Florida Everglades. Some of the trees grew to 150 feet. This forest existed 41 million years before humans appeared on Earth.

Animals such as crocodiles, turtles and flying lemurs apparently lived in the warm, humid climate where summer temperatures rose into the 80s and winter lows never dropped under the freezing mark. Why such warmth way up there? It was a period of very high water levels, Bars inger said. And because of continental drift, land masses were aligned differently, allowing tropical waters to move up and warm the arctic climate.

Another factor was the "greenhouse effect," the warming of the earth because of atmospheric buildup of carbon dioxide, which traps heat. The phenomenon, which is happening now, occurred millions of years ago, too, Basinger said. Although the 20th-century greenhouse effect is believed due to industrial life, the cause of the greenhouse effect that nurtured the arctic forest was natural carbon dioxide.

It was part of a cycle millions of years long: In a period of tremendous growth, vegetation on land and in water was lush. This caused carbon dioxide levels to drop because the greenery was absorbing it, so heat escaped from the Earth. Over time, water levels receded, causing a period of less growth and greater erosion. Over the long term, this increased carbon dioxide levels and warmed the Earth. The prehistoric wood, Basinger said, has a reddish color and splits and splinters like wood, despite its age. "You can even cut it and burn it," he said. Basinger suspects the forest was preserved by a flood that covered it in sediment, preserving it through the thousands of centuries.

Basinger will work with Jane Francis, a specialist in fossil forests from the University of Adelaide in Australia. Hoping to get sharper identification of plants, they will examine how the forest developed in the unusual environment of permanent light in summer and permanent darkness in winter.

There is no place on Earth where the lights go out and it's still warm," Basinger said. "A lot of scientists have suggested they would grow in peculiar ways, that the forests would be thin. But these plants apparently went dormant comfortably and did well under those terms."

> Submitted by MAPS Member Larry Oliveria Milpitas, CA 95035

(Ed. comment--There was no date or publication name, but it must have come from some newspaper in the Santa Clara Valley of CA)

CHRISTMAS IS LOVE

During the day or so it's taken to put together this <u>Digest</u>, there have been phone calls from Ohio, Texas, and Missouri. Each one a MAPS Member working on projects and ideas to share with all of you.

What an extraordinary group!

MAPS IS LOVE



### MAPS DIGEST

#### Volume 9 Number 9

December. 1986

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 incorpor-ated 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: January 1 through December 31 is \$10.00 per household.

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 sponsored by the Indiana Society of Paleontology, the Indiana Chapter of MAPS. November through April meetings are scheduled for 2 p.m. in the Science Building, Augustana College, Rock Island, Illinois. MAPS Annual International Fossil Exposition is held in the Spring, and a second show in the Fall, Fossilmania, is sponsored by Austin Paleontological Society, a MAPS Affiliate.

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	5240 <mark>2</mark>



FIRST CLASS MAIL

Allyn & Dorris Adams

52806

KINIES612 W. 51st StreetDavenbort, IA5

MID-AMERICA PALEONTOLOGY SOCIETY

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

Dated Material - Meeting Notice

