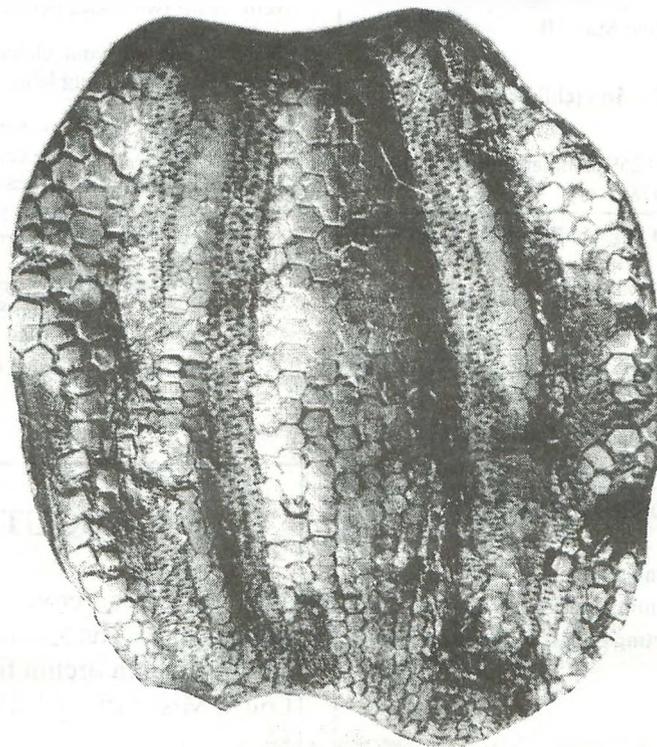


# M.A.P.S. *Digest*

Official Publication of  
Mid-America Paleontology Society

Volume 24, No 1  
January 2001



## MARK YOUR CALENDARS

**Feb 10 MAPS MEETING** Trowbridge Hall, University of Iowa, 123 N. Capital St., Iowa City, IA. Main Lecture Room, #125.

1:00 Board & General Meeting Combined  
2:00 Program by University of Iowa Professor on Crinoids

**Feb 10 "WHERE ARE THE DINOSAURS?"** Lecture by Jane E. Ansley

Paleontological Research Institute, 1259 Trumansburg Rd, Ithaca, NY 14850. Noon. 607-273-6623. www.priweb.org

**Mar 10 "CREATURES FROM THE OLD LAGOON,"** Lecture by Elizabeth Humbert

Paleontological Research Institute, 1259 Trumansburg Rd, Ithaca, NY 14850. Noon. 607-273-6623. www.priweb.org

**Mar 10 THE MAZON CREEK FOSSIL STORY**

Lizzadro Museum of Lapidary Art, 220 Cottage Hill, Elmhurst, IL  
Andrew Hay, author, Earth Science Club of Northern Illinois member, and Associate Curator of the Mazon Creek Project at northeastern Illinois U., presents the development of plant life in the Mazon Creek area. Slide Show/Lecture. 2:00 pm — 60 minutes.

Free with Museum Admission.

Reservations Recommended: 630-833-1616

**Mar 17 ALL DAY FIELD TRIP TO AMERICAN MUSEUM OF NATURAL HISTORY**

6 am to Midnight. Transportation on chartered bus to the Museum in New York, admission to AMNH, and guided tours by the PRI staff. Meals on own. Preregistration deadline Mar. 10.

PRI Mbr: \$60 (children \$38); Nonmbr. \$65 (children \$43)

Paleontological Research Institute, 1259 Trumansburg Rd, Ithaca, NY 14850 607-273-6623. www.priweb.org

**Mar 24-25 33<sup>RD</sup> ANNUAL BUFFALO GEM, MINERAL, FOSSIL SHOW**

Sat., Mar. 24 10 am - 8 pm

Sun., Mar. 25 10 am - 6 pm

Theme "2001 Space Odyssey: Meteorites - Killer ROCKS from Outer Space?"

Contact: Robert Hoffman, 388 Townline Rd, Lancaster, NY 14086  
716-626-1080 (days), 716-681-6875 (evenings), 716-626-1214 (fax)

**Mar 30-Apr 1 MAPS NATIONAL FOSSIL EXPOSITION XXIII—TRILOBITES**

Western Illinois University, Macomb, IL

Fri., Mar. 30 8 am - 5 pm Keynote Speaker J. Adrain @ 7:30

Sat., Mar. 31 8 am - 5 pm Meeting & Live Auction @ 7:00

Sun., Apr. 1 8 am - 12 noon

Information is included in the December issue.

**Apr 28 FOSSIL COLLECTING FIELD TRIP**

Lizzadro Museum of Lapidary Art, 220 Cottage Hill, Elmhurst, IL

Trip to Braidwood, IL, to collect Mazon Creek Fossils at Pit 11. Led by Don Auler. Travel by motorcoach, take lunch, wear old clothes. Rain or shine. Ages 9 - Adult — 9:00 to 3:00.

Members/\$15; Others/\$20

Reservations Required: 630-833-1616 (Call Early)

**Apr 12-14, 2002 MAPS NATIONAL FOSSIL EXPOSITION XXIV—TRACKS AND TRAILS**

Western Illinois University, Macomb, IL

Fri., Apr. 12 8 am - 5 pm Keynote Speaker @ 7:30

Sat., Apr. 13 8 am - 5 pm Meeting & Live Auction @ 7:00

Sun., Apr. 14 8 am - 12 noon

Information is included in the December issue.

### 991/01 DUES ARE DUE

Are your dues due? You can tell by checking your mailing label. It reflects dues received by Nov. 30. The top line gives the expiration date in the form of "99year" followed by month--991/01 means 2001/Jan. Dues cover the issue of the Digest for the month in which they expire.

We do not send notices but will let you know if you are overdue by highlighting your mailing label and stamping your Digest. We carry overdues for two issues before dropping them from our mailing list.

Please include on your check your due date and name exactly as it appears on your mailing label--or include a label.

Dues are \$20 per U.S./Canadian household per year. Overseas members may choose the \$20 fee to receive the Digest by surface mail or a \$30 fee to receive it by air mail. (Please send a check drawn on a United States bank in US funds; US currency; a money order; or a check drawn on an International bank in your currency.) Library/Institution fee is \$25.

**Make check payable to MAPS and mail to:**

**Sharon Sonnleitner, Treas.**

**4800 Sunset Dr. SW**

**Cedar Rapids, IA 52404**

### ABOUT THE COVER

This month's cover photo was sent by Bruce Stinchcomb. The specimen is *Melonechinus multiporus*, a primitive sea urchin from the St. Louis Limestone, St. Louis, Missouri. (x 1/2)

**PROCEEDINGS OF THE BOARD**

January 13, 2001

**EXPO:** Paul Rechten and his son will run the elevator.

We will print 3000 flyers advertising the show. Some will be sent to Tucson and other shows in the Midwest; others will be mailed to all the clubs in the Midwest and in Kentucky.

Charlie Oldham has accepted editorship of the 2002 Expo Digest and will follow through with the pre-selected theme of "Tracks and Trails."

Our keynote speaker, Professor John Adrain, University of Iowa, will speak on "Hot Deserts, Cold Deserts, and Black Bugs--the Field-Based Science of Trilobites" Friday night at 7:00.

**RICHARDSON AWARD:** Frank Perry will be awarded MAPS Richardson Award honoring a professional who has greatly supported amateur paleontologists. We do not yet know if he will be able to accept it personally or will send a representative.

**PROGRAM:** Following the meeting, Cornell College Professor Ben Greenstein presented a program on his studies of the state of modern coral reefs based on their paleontological history. His findings lead him to conclude that "normal occurrences and fluctuations are exacerbated by human effects" such as nutrient overloading and over-fishing. He presented his data recently at the 9<sup>th</sup> Conference of the International Society for Coral Reef Studies, held in Bali. His studies support the statement issued by the Society that "the world's coral reefs are in trouble."

**SEDIMENTARY NOTES**

*In a notesent December 21 with his dues, David Jones writes:*

. . . I made a copy of a Tertiary 3-toed mammal footprint. The Fossilmania show was great, and it was fun to see some MAPS members there. My friend from Stillwater, Minnesota, bought a dinosaur egg which may be *Oviraptor*. It came from a place in China a few miles from the Mongolia border. I'll take it to Dinofest . . . and ask questions about it. . . How many people plan to go to the Western Vertebrate Paleo. Meeting in Mesa, Arizona? It starts right after the Tucson show is over. See you next Spring.

**FROM THE PALEO SOCIETY**

Dear Sharon,

On behalf of the Paleontological Society thank you for the \$2,000 donation of the PS Student Scholarship Fund. Please express the Society's appreciation to the membership of MAPS. This is a substantial contribution that will have a significant impact on our ability to support deserving graduate student research in paleontology. Such donations help insure the future vitality of paleontologic research.

Thank you also for sending the \$100 contribution from MAPS for the Strimple Award Fund. Each year we use money from this fund to pay the travel expenses for the recipient of the Strimple Award to our national meeting. This award is one way for the Paleontological Society to show its appreciation for the support amateur paleontologists give to the science of paleontology.

Sincerely,  
Thomas W. Kammer, Treasurer

Dear Sharon:

Tom Kammer, Paleontological Society Treasurer, has informed me that the PS recently received contributions from the Mid America Paleontology Society for support of the PS Student Scholarship Fund and the Strimple Award Fund.

I wish to add my thanks to Tom's on behalf of the Paleontological Society for this support from MAPS. Funding of student research and recognition of contributions by amateur paleontologists are important to the PS, and we appreciate the support MAPS has provided for these efforts.

Sincerely,  
Dr. Patricia H. Kelley  
President, Paleontological Society  
Chair, Department of Earth Sciences, UNCW

## COMMENTS ON AMATEUR AND PROFESSIONAL PALEONTOLOGISTS

*Following are an excerpt from Rock & Gem magazine and a comment from Garth Ziembra, who sent the article.*

### **An Excerpt from "Fight For Fossils!" in Rock & Gem**

*(A previous part of the article describes the requirements for an undergraduate degree needed for a career in paleontology and goes on to say:)*

. . . A master's degree is the minimal requirement for employment as a professional paleontologist. A position as a professor, researcher or curator demands doctoral credentials.

In the United States, universities employ about 650 paleontologists, two-thirds of them in faculty positions. Along with teaching, their university responsibilities include laboratory research and the supervision of field surveys and excavations.

Another 200 paleontologists work with private and government museums, with the National Park Service or with other government agencies, such as the Bureau of Land Management. They are active in basic research; fossil excavation, preparation and display; geological surveys and mapping; evaluation of paleontological resources; and environmental-impact assessment.

Most of the 350 paleontologists employed by industry hold master's degrees. They work mainly for oil companies in the field of petroleum exploration, studying fossils to precisely identify, correlate and date petroleum-bearing and associated strata.

### **The New Paleontology**

High-tech paleontology has already impacted the nature of museum displays at major museums like the American Museum of Natural History in New York City and the Denver Museum of Natural History. The Denver museum's Prehistoric Journey exhibit, which opened in 1994 following a six-year, \$7.7-million construction effort, is internationally recognized as a showcase of modern paleontology.

"We departed from traditional exhibits that simply depicted ancient life," explains Dr. Stucky. "We focused instead on key events—life's origin, the appearance of the first complex life forms, the first life on land, the origin of modern ecological habitats, and so forth—and made them the teaching points. We showed how the different sciences—from physics, imaging and engineering to botany, ecology and taxonomy—now contribute to our understanding of the history of life, and how the underlying science was performed."

Looking toward the future, three primary assets will carry paleontology into the next century: advanced analytical techniques that will coax more information out of fossils than ever before; faster computer systems to store, manipulate, analyze and transfer the obtained data; and a growing confidence among paleontologists to interpret and extrapolate that data into new ideas about the nature of the ancient world.

In paleontology's immediate future, the nation's top scientists see an even greater reliance on high technology and cutting-edge science. Dr. Douglas Erwin, a paleobiologist with the National Museum of Natural History (Smithsonian Institution), predicts that advanced, high-resolution, geochronologic data will revolutionize the study of evolutionary rates, and that geochemical data will further integrate itself into paleontological studies to provide more detailed pictures of paleoenvironmental change.

Paleontologists also anticipate development of more efficient methods to recover fossil DNA fragments. University of California plant geneticist Michael Clegg says, "If we can [recover DNA] often enough, then it will become a real tool for evolutionary biological research. It could even lead to a whole new field: molecular paleontology."

As late as the 1960s, amateur paleontologists made significant contributions to the science. But, today, professional paleontology has left them far behind. Whatever direction paleontology takes in the future, it will do it hand in hand with high-tech science and state-of-the-art analytical methods, and without the need for amateur contributions.

What does that mean for fossil collectors? The immediate answer is a widening gap between the interests of professional paleontologists and fossil collectors. As fossils become ever more valuable to science, it is only reasonable to expect further restrictions on nonscientific fossil collecting. The debate on that point will continue well into the next century, but the balance is swinging in favor of the scientists.

But further restriction on amateur fossil collecting would hardly be a total loss. On the positive side, every amateur paleontologist and fossil collector will be able to enjoy exciting new books and museum displays that answer in remarkable detail the questions we have long asked about such phenomena as the great extinctions and recoveries, the behavior of dinosaurs, the origin of life, and the evolution of mammals, including humans. And that just might be a fair tradeoff.

### **A Response from Garth Ziembra**

*(In a letter addressed to MAPS President Karl Stuerkerjuergen)*

The article on access for amateur collectors by Richard Hill in the May/June "Digest" is an excellent summary of the deteriorating situation.

The (above) item from "Rock and Gem" is a scary article in the sense that there is the suggestion that it is reasonable to deny access to amateurs so as to "save" the fossils for professional scientific researchers. Mr. Hill made the point that certain sites of scientific importance should be restricted. However, an uncollected specimen on the surface is doomed to destruction by erosion. It does not take a genius to realize that the very limited resources of academic researchers hardly makes a dent in the number of fossils exposed at the surface. In many cases, an amateur first notes something interesting and communicates the find to an academic researcher. I doubt if very many original sites are found by university programs - they follow in the footsteps of others and then properly investigate the site. Which is fine. The many amateurs have the time to wander around to places that escape the limited resources of the academics. We can cooperate together for the benefit of all.

There was a recent local TV program on the T-Rex "Sue" at Chicago's Field Museum. Sue Hendrickson pointed out that the bone she saw protruding from the exposure was in an actively eroding area and if the bone had not been noticed the entire fossil would probably have been destroyed before anyone else was searching the area.

The vertebrate fossil situation is no doubt responsible for some of the current change of direction regarding amateurs. These suggestions for restrictions have very little to do with science and an awful lot to do with money and power. Realizing that, one cannot discuss this topic in a logical and reasonable manner to achieve a fair judgement.

I stopped helping two academic researchers in England in the 1970's due to their trading information, that I had given the researchers in confidence, to professional mineral dealers-the latter stripped the localities and offered a portion of the "take" to the researchers. One of these researchers was a professor at a major university and he offered to identify mineral samples found at new localities! I am sure that these people were not representative of the whole, but one can get cynical after this type of experience.

It seems to be reasonable to the uninformed that "important scientific samples" should be totally under the control of professional researchers. Therein lies our problem.

Perhaps we could canvas MAPS members for ideas on how we can take a position to inform the political community that

amateurs not only have a right to collect where they do not cause destruction of important information, but that amateurs make real contributions - either directly, or because we make advanced researchers aware of new finds. It is the political community that will pass the laws restricting access. It is pointless to argue with people that already have their own agenda.

My main interest is in things microscopical and for almost a year I have been trying off and on to collect a coffee-can sized sample of the eroding debris from an igneous intrusion in a Midwest state. The site is on state land and the easily erodible rock is losing many pounds of bedrock per day. I wanted to separate some minor mineral species for high-tech analysis at my expense and publish the results in an open newsletter of an Illinois microscopy society.

However, I was informed, by a state employee, that one cannot collect casual samples on state land without going through the permitting process for a full mining permit. The state never apparently considered amateur collecting and, while it might occasionally be carried out on state land unofficially, I was told in no uncertain terms that if I were caught I could be prosecuted for theft of state property on the basis of criminal trespass. Even universities are unable to avoid the permitting process for their research.

Since I could not publish any results on samples that were collected illegally, I have been trying to officially clarify if amateurs have the right to collect. It seems this is a gray area, left to local discretion. Discretion is a can of worms. We need a law that covers the entire country and supersedes state and local laws to avoid local interpretations.

Perhaps we are just going through a phase, but, unfortunately, I think not. Once a restriction is in place, political inertia makes it extremely difficult to return to the previous situation. Politicians are generally trained in the legal system and this system teaches that it is more important to maintain the status quo through strict adherence to precedence rather than disturbing the balance with excursions into new territory. Thus, collectors need the support of friendly academics and perhaps we can stress that the hobby not only benefits ourselves but has benefits to the community at large. Such an approach to appropriate political representatives might stop this situation from getting too far out of hand. Perhaps we need some manner of centralized system to collect the views of supporters and present a united front. Unfortunately, I cannot presently devote the energy to pursuing this topic at the level I would like.

Yours sincerely, Garth Ziembra, Naperville, Illinois  
August, 11, 2000

## FOSSILS ON FEDERAL AND INDIAN LANDS—PART II

Report of the Secretary of the Interior, May 2000

<http://www.doi.gov/fossil/fossilreport.htm>

*This report of will run in several installments*

### I. INTRODUCTION

#### Purpose and Scope of Report

This report responds to Senate Report 105-227 on the Fiscal Year 1999 Interior and Related Agencies Appropriations Act. The Senate Report states that the "Secretary of the Interior, in consultation with appropriate scientific, educational and commercial entities, should develop a report assessing the need for a unified Federal policy on the collection, storage and preservation of . . . fossils." The Senate Report further states that "the report should evaluate the effectiveness of current methods for storing and preserving fossils collected on public lands . . ." The Senate Report also encourages the Secretary of the Interior to assess the need for standards that would ". . . maximize the availability of fossils for scientific study."

As a follow-up to Senate Report 105-227, Senators Tom Daschle and Tim Johnson sent a letter to the Secretary of the Interior. In their letter dated November 5, 1998, the Senators requested "recommendations as to how to structure . . . a [unified Federal] policy" including necessary "legislative action." Furthermore, the Senators urged the Secretary to include "recommendations to improve our ability to preserve and study fossils collected on public lands."

The agencies directed by the Senate to assist the Secretary of the Interior in preparing this report (consulting agencies) include the Bureau of Land Management (BLM), the Forest Service (FS), the National Park Service (NPS), the Fish and Wildlife Service (FWS), the Bureau of Reclamation (BOR), the Bureau of Indian Affairs (BIA) and the Smithsonian Institution (SI). The U.S. Geological Survey (USGS) also contributed to the report because of its special expertise in the earth sciences.

In this report, the consulting agencies assess the need for a unified federal policy for collecting, storing and preserving paleontological specimens. This report recommends that federal fossil management would be enhanced by a comprehensive approach for protecting and managing these important resources. Such actions should be governed by the seven overarching principles outlined in this report.

#### Developing the Report to Congress

The consulting agencies used the following process in writing this report:

- Identified and discussed the significant policy issues concerning collecting, storing and preserving paleontological specimens and prepared a summary of these issues.
- Identified relevant departmental manuals, regulations and agency handbooks to assist outside parties in their review of the federal governments policies on collecting, storing and preserving paleontological specimens.
- Prepared a background paper on the federal governments existing practices for managing collection, storage and preservation of paleontological materials and published a notice in the *Federal Register*, 64 Fed. Reg. 27803-27804 (May 21, 1999), of a public meeting on June 21, 1999, and the availability of the background paper; distributed the notice to key professional societies, organizations and major scientific, educational and commercial entities concerned with collecting, storing and preserving paleontological specimens.
- Sponsored the public meeting to solicit the views of representatives from various interest groups and the general public; reviewed the relevant public input.
- Prepared an outline, based on the information secured above, of the topics to address in the report to Congress.
- Prepared a draft report and published in the *Federal Register*, 64 Fed. Reg. 58094 (October 28, 1999), a notice of the availability of the draft report and distributed the notice to attendees of the public meeting.
- Prepared the final report, including a review of comments received, for submission to Congress.

### II. VALUE OF FOSSILS

**Do fossils have scientific value?** Yes. Fossils are the remains, imprints and traces of once-living organisms preserved in the earths crust. They may be bones and teeth, shells, leaf impressions, footprints, or burrows. The fossil record is our only evidence of more than 3.5 billion years that life has existed on earth. Fossils show us that:

- the first organisms on the planet were similar to living nonphotosynthetic bacteria,
- there was a great diversification of multicellular animals in the oceans about 540 million years ago,
- the first plants lived on land about 400 million years ago,

- four-legged creatures first walked on land about 350 million years ago,
- dinosaurs evolved about 220 million years ago, and
- mammals and modern birds became very diverse about 65 million years ago.

Fossils show how the physical earth has changed over time. By studying them we can investigate the effects of climatic change over long periods of time. Fossils show us that:

- the climate has warmed and cooled,
- the positions of continents have changed, and
- mountains have been lifted up from ocean bottoms or continental lowlands.

Fossils also document the way living things respond to changing conditions. Without them, we cannot understand the history of life on earth. The fossil record lets paleontologists test their ideas about how the world works. Fossils reveal and help us understand:

- mass extinctions of species at several times in the history of the planet,
- periods when many new forms appeared in a short time,
- genealogical relationships of living species to one another,
- rapid environmental changes in the past,
- effects of human-caused changes to the earth's environment, and
- effects of environmental changes on biological diversity and ecological structure.

**What role do fossils play in education?** Fossils play an important role in education. This is because paleontology, the study of fossils, is a science that combines geology, biology, chemistry and physics in an effort to understand the origin of our world and ourselves. Even the most reluctant student is fascinated by the past, especially when the lessons include dinosaurs and other intriguing fossils in a way that stimulates his or her curiosity and imagination. Fossils are an ideal means for teaching how science works.

**Do fossils have commercial value?** Yes. Complete fossils have commercial value. Many fragments do as well. Many fossils, like objects of art or gemstones, are rare, beautiful or awe-inspiring; others are merely curiosities. There is a market for both the rare and exotic and the relatively mundane. Even before there was the science of paleontology, people collected fossils to sell them to museums or private collectors. One tension in the discussion of appropriate fossil management arises from the fact that fossils with high commercial value often have high scientific value.

### III. MANAGEMENT OF FOSSILS ON INDIAN LANDS

#### Bureau of Indian Affairs

The authority of the Bureau of Indian Affairs (BIA) to manage fossil resources on Indian lands is limited and not mandated by statute. The BIA's responsibilities are different from land managing agencies within the Department, such as the BLM or the NPS. Indian lands are lands that the United States holds in trust. These lands are subject to a restriction against alienation imposed by the United States because they are for the benefit of an Indian tribe or an individual Indian. The Government does not exercise the same rights of ownership or control over these lands as it does over federal lands.

The government's role in managing Indian lands is that of a trustee. As a trustee, the BIA approves realty transactions or business arrangements with non-tribal parties that are initiated by an Indian landowner, and this approval is not discretionary. It is based on a determination that the transaction is to the benefit of the Indian landowner.

Fossils that have commercial value have been found to be trust resources, and the BIA must manage the fossils as a trust resource. In managing trust resources, the BIA is limited to approving either leases of Indian lands, or contractual agreements between Indian landowners and third parties for the extraction of such fossils. The criterion for these approvals is that the arrangements are of economic benefit to the Indian landowner. The arrangements are also subject to evaluation under the National Environmental Policy Act (42 U.S.C. §§ 4321-4347) and the National Historic Preservation Act (16 U.S.C. §§ 470-470x-6.).

Since Indian lands are lands held in trust, the Indian tribe or individual Indian landowners may use fossil resources for their economic benefit. The BIA's role in these transactions is to ensure that the transaction benefits the Indian landowner. The BIA has no other authority to manage paleontological resources within its jurisdiction.

#### Access

If individuals or scientists are interested in access to fossils on Indian lands, they must get in touch with the tribe or individual landowner and request permission. The tribe or individual Indian landowner may deny access to their lands or may allow access with certain restrictions. It is up to the Indian landowner, not the BIA, to determine who has access to their lands and under what conditions that access will be permitted. Scientists are encouraged to work directly with the tribe or individual Indian to secure permission for research.

## KENTUCKY CRINOID SITE

by Alan Goldstein

Well, it only took 11 years, but the research from a crinoid site I found in Hardin County, Kentucky was finally published in the *Journal of Paleontology*! It was co-authored by my friend and co-discoverer Ron Yates and crinoid expert William Ausich.

The site was a lot like the more famous localities discovered near Crawfordsville, Indiana in the 19th century. The deposit occurs in the Borden delta of early Middle Mississippian age (350 million years ago). The types of crinoids were surprisingly different from the Crawfordsville site. For instance, of the 500+ crinoids we collected, only one *Macrocrinus* and one *Agaricocrinus* were found. They are the most common from Indiana. After Dr. Ausich completed the research of the specimens, we ended up with 8 new species. One of them is named for (my wife)Debbie. The 97 most important specimens are being donated to the Smithsonian. Another 100 or so of lesser significance are going to be deposited in the Orton Geology Museum at Ohio State University.

The site produced shark teeth, a lot of hexactinellid (glass) sponges, and other more typical and unusual Mississippian-age fossils (brachiopods, bryozoans, snails, trilobites, echinoids, conularids and rhodophyte algae remains). Among the more curious fossils were arthropod tracks in limestone from a critter about 3" wide and a conularid impression in limestone from a beast about 8" long! (Both were found in the winter when the sun angle was low and their shadows made them visible.) I noted a seven-foot long crinoid stem on some mega-ripples that were so wide, the back wheels of Ron's full-size pick up truck were on one ripple crest, the front were on the next! Unfortunately the site is now flooded and inaccessible.

My next project is a book on the paleontology of the Falls of the Ohio for Indiana University Press. I have got a lot of research to do for this one!

## ANCIENT LIZARD STOOD UP TO RUN

sources: <http://www.eurekalert.org/releases/aaas-arr102700.html>  
& "Researchers: Lizard was first creature to walk on 2 feet,"  
in Prescott Daily Courier. 11/5/00. 22A

Ever hear of the Jesus Christ lizard? This critter from Central America is noted for its ability to run across the surface of the water. Amazing as that is, the J.C. lizard is not among the first lizards to run on their hind feet. The recently discovered 290 million-year old *Eudibamus cursoris* holds the distinction of being the first known bipedal lizard. A distant relative of the J.C. lizard (in both time and relationship), it was running on its hind feet even before the existence of the first erect dinosaurs.

*Eudibamus* is the oldest known member of the Parareptilia, a major group of primitive reptiles. It does not appear to be a direct ancestor of later reptiles (including some dinosaurs) that developed an upright posture and mobility. That fact leads scientist to postulate that bipedal adaptations may have originated independently several times over the course of history, according to a report in the Nov 3 *Science*.

The 261 millimeter long fossil was discovered exquisitely preserved in a German quarry. Studies of its skeleton suggest the lizard could move swiftly on two legs, probably up on its toes, swinging its short forearms much like a running human. Its hind legs were relatively long with unusually long feet, an indication of bipedal locomotion. Its long tail could have acted as a balance. Further indication of upright motion is the arrangement of the specimen's hip, knee, and ankle in a straight line at full extension. This lineup allowed the knee and ankle to bend much like a human's.

*Eudibamus*'s ability to run, and its diet, probably allowed it to roam farther than most of its Permian contemporaries. The family of reptiles it belongs to had an unusually large geographic range.

Did *Eudibamus* run to eat or eat and run? Since its teeth are those of a herbivore, it most likely used its speed (up to 15 miles per hour for short bursts) to escape predators rather than to chase down prey. In fact, a small fossil uncovered in a recent excavation of the quarry may prove to be one of its enemies.

**PLEASE ADD THE FOLLOWING NEW OR REJOINING MEMBERS TO YOUR DIRECTORY:**

George Bobeck  
102 N Glendale Ave  
Barrington IL 60010  
847-304-1744  
fossil3@prodigy.net

Lawyer. Will not trade yet (01). Major interest Mazon Creek fauna & flora.

Gary H. Burgess  
16513 Pollack DR KPN  
Lakebay WA 98349  
206-884-3234

George Fiedler  
RT 4 BOX 196B  
Linden TN 37096

Dennis W. Haas  
104 East Wisconsin Street  
Trenton IL 62293  
618-224-9458  
LLCJ905600@aol.com

Carpenter. Nothing to trade (01). Wants to learn and collect.

Michael Hennel  
290 Cottage Hill Ave  
Elmhurst IL 60126  
630-655-3313  
mike.hennel@silvon.com

Software Company Executive. Major interest Mazon Creek. Will trade. Wants to learn more and trade.

Christopher P. Sheridan  
PO Box 180  
Port Elizabeth NJ 08348  
610-922-3911

Barry Sutton  
265 St. Eugene Lane  
Florissant MO 63033  
Lakeneosho@aol.com

Major interest Pennsylvanian fauna. Will trade. Has for trade Penn. gastropods, corals, sponges, some brachiopods, and more. Member of Eastern MO Soc. for Paleo. (EMSP).o

**PLEASE NOTE THE FOLLOWING CHANGES OF ADDRESS OR CORRECTIONS:**

Geoffrey Barrett  
60, Riverwood Circle SE  
CALGARY, ALBERTA  
CANADA T2C 4A9  
403-279 1838  
geoff-junebarrett@home.com

Toolmaker. Will not trade. Major interest invertebrates, esp., corals & brachiopods. Wants to contact others with similar interest.

Stephen R. Dickerson  
6334 Sarazen St SW  
Olympia WA 98513

College Professor of Philosophy. Nothing to trade yet. Major interest trilobites, Mesozoic fossils, Tertiary crustaceans. Wants to learn more about fossils, make contacts, and broaden his collection.

Mark B. DuBois  
116 Burton Street  
Washington IL 61571-2509  
309-444-7261  
mdubois@home.com

Assistant Professor. Major interest fossil insects. Will trade.

James D. & Donna L. Fackenthal  
5303 S Drexel Ave  
Chicago IL 60615

Graduate Student. Chiefly interested in going on organized digs. Member Indiana Soc. for Paleo.

Ronald Garney  
35 Cottage St.  
Amherst MA 01002  
413-549-1351  
bites@massed.net

Teacher. Will trade. Major interest trilobites, but tends to collect all flora & fauna from any locale. Has Devonian material from NY & Ontario (including microfossils) as well as Paleozoic material from several areas in the U.S. Wants contact with other collectors in other parts of U.S. & Canada. Also interested in the educational value of fossils & sharing it w/ other teachers.

Earl Hoffman  
3022 Woodland Rd  
Los Alamos NM 87544-1535  
505/662/7823

Physicist. Will trade. Major interest currently conularids. Has for trade Penn. Marine Invertebrates from NM. Wants to expand his interaction with amateur collectors.

## ADVERTISING SECTION

Ads are \$5.00 per inch. Send information and checks payable to MAPS to : Mrs. Gerry Norris, 2623 34<sup>th</sup> Avenue Ct., Rock Island, IL 61201. Phone: (309) 786-6505  
This space is a \$5.00 size.

To extend currently running ads, please send request and remittance to Editor by the 15<sup>th</sup> of the month. We do not bill. Ads do not run in the EXPO issue (April). Ads can be printed in different sizes of type to fit a 1" space.

### CENTRAL ILLINOIS FOSSIL SHOW

Macomb Inn (Days Inn)

1400 N. LaFayette, Macomb, Illinois

HOURS: Wed., March 28 . . . . . 1:00 p.m. until late evening  
Thurs., March 29 . . . . . 9:00 a.m. until late evening  
Fri. & Sat., March 30-31 . . . . . By appointment during MAPS  
show times & evenings

The intent of this show is to enhance MAPS Expo  
and to allow dealers who need it more selling space.

For show info, contact: **Dan Damrow 715-457-6634**

**Chuch Warren 517-439-5632**

To reserve a selling room contact Macomb Inn at: 309-833-5511

### BRAND NEW WEB SITE

One of the largest Fossil Sites on the Net.

Fossils of all Varieties

Old Paleontology Books, Antique Bottles, Indian Artifacts, and Minerals

Go to:

**[www.geocities.com/fossilstore/](http://www.geocities.com/fossilstore/)**

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: \$20.00 per household covers one year's issues of DIGESTS. For new members and those who renew more than 3 issues past their due date, the year begins with the first available issue. Institution or Library fee is \$25.00. Overseas fee is \$20.00 with Surface Mailing of DIGESTS OR \$30.00 with Air Mailing of DIGESTS. (Payments other than those stated will be pro-rated over the 9 yearly issues.)

MAPS meetings are held on the 2nd Saturday of October, November, January, and March and at EXPO in April. A picnic is held during the summer. October through March meetings are scheduled for 1 p.m. in Trowbridge Hall, University of Iowa, Iowa City, Iowa. One annual International Fossil Exposition is held in April.

The MAPS official publication, MAPS DIGEST, is published 9 months of the year—October through April, May/June, and July/August/September. View MAPS web page at <http://midamericapaleo.tripod.com/>

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Dated Material - Meeting Notice

CYATHOCRINITES



Mrs. Sharon Sonnleitner  
 MAPS DIGEST Editor  
 4800 Sunset Dr. SW  
 Cedar Rapids, IA 52404

FIRST CLASS MAIL

MID-AMERICA PALEONTOLOGY SOCIETY