M·A·P·S Digest

Official Publication of
Mid-America Paleontology Society

Volume 26, Number 1
January 2003

MARK YOUR CALENDARS

Feb 8 MAPS MEETING
Trowbridge Hall, University of Iowa, 123 N. Capital St. Iowa City, IA. Main Lecture Room, #125.
1:00 Board and General meeting
2:00 Program: "Sabertooth Cats & Their Prey: Extinct Mammals of the Pleistocene Epoch." by Donald F Johnson an amateur paleontologist from Iowa City. Don is billed as the "Fossil Guy" in a popular series of Sunday presentations for kids at Iowa Hall in the Natural History Museum in Iowa City.

Mar 22-23 BUFFALO GEOLOGICAL SOCIETY SHOW
"Prehistoric Seas of New York", Includes fossil exhibits, specimen identification.
Sat. 10-6
Sun. 10-5
Admission $4.00; under 12 Free
Contact: Bob Hoffman 716-681-6875; RJH52089@earthlink.net

Mar 22 FOSSIL COLLECTING FIELD TRIP—BRAIDWOOD
Lizzadro Museum of Lapidary Art, 220 Cottage Hill, Elmhurst, IL 60126
Collect Mazon Creek fossils at Braidwood's Pit 11 with members of the Earth Science Club of Northern Illinois. . Rain or shine. 8:00-3:00. Travel by motorcoach. Bring sack lunch. Ages 9-Adult. $25/nonmemb.; $20/ Lizz. Memb.
Reservations Required: 630-833-1616

Mar 28-30, 2003 MAPS NATIONAL FOSSIL EXPOSITION XXV – CEPHALOPODS & AMMONITES
Western Illinois University, Macomb, IL
Fri., Mar 28 8 am - 5 pm—Keynote Speaker, Dr. Brian Glenister @ 7:30
Sat., Mar 29 8 am - 5 pm—Meeting & Live Auction @ 7:00
Sun., Mar 30 8 am - 12 noon
Information was be included in the December issue.

Mar 29-30 VOLCANOES, CAMELS & CARNIVORES: THE EOCENE/OLIGOCENE STORY FOUNDERS SYMPOSIUM
Green Center, Colorado School of Mines, Golden, CO
Sat. 8:00-5:00 (Speakers, poster session, exhibits)
Sun. 9:00-5:00 (Speakers, workshops, poster session, displays)

Host: Western Interior Paleontological Society: www.wipsppc.com
Reservaions recommended: $40/day or $120 for 1 CE credit (must attend both days). Walk-ins $50.

Apr 5 JANE: THE *NANOTYRANNUS*
Lizzadro Museum of Lapidary Art, 220 Cottage Hill, Elmhurst, IL 60126
Slide/Lecture by Rockford's Burpee Museum of Natural History Mike Henderson. Youth-Adult. 2:00-3:00.
Free with regular admission
Reservations Recommended: 630-833-1616

Mar 26-28, 2004 MAPS NATIONAL FOSSIL EXPOSITION XXVI
Western Illinois University, Macomb, IL
Fri., Mar 26 8 am - 5 pm—Keynote Speaker @ 7:30
Sat., Mar 27 8 am - 5 pm—Meeting & Live Auction @ 7:00
Sun., Mar 29 8 am - 12 noon
Information will be included in the December 2003 issue.

2003/01 DUES ARE DUE

Are your dues due? You can tell by checking your mailing label. It reflects dues received by January 25. The top line gives the expiration date in the form of "year" followed by "month"—2003/01 means 2003/January. 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 Gerald Gunderson.

The insect in the photograph is a crane fly. It resembles the genus *Pronophlebia* sp., and belongs to the family Tipulidae. The length from the tip of the head to the tip of the abdomen is 12 millimeters. The wing span of this fossil is 31 millimeters. The narrow, knob-tipped, small club-like structures immediately behind each fully developed wing, are vestigial wings, and are called halteres. Halteres on today's living crane flies flap just like wings, but they flap counter to the motion of the fully developed paired wings.

The fossil image on the cover has been magnified six times actual size.

This specimen was found in 1989, on a hard calcium carbonate rich oil shale, northwest of Rifle, Colorado, and collected from the Parachute Creek Member, Green River Formation, Eocene.

PROCEEDINGS OF THE BOARD

January 10

University of Iowa Trowbridge Hall, Iowa City, Iowa
Present: Allyn Adams, Alberta Cray, Marv Houg, Gil Norris, Blane Phillips, Sharon Sonnleitner, Dale Stout, Karl Stuekerjuergen,

EXPO: Wendy Taylor will bring an exhibit of African dinosaurs from the University of Chicago. Steve Holley will bring a special exhibit for kids and talk to them as they go through the show. Gil will bring an exhibit of ammonites.

RICHARDSON AWARD: We have received three nominations for the award this year: Michael Henderson, Don Mikulic and Joanne Kluessendorf, and Bruce Stinchcomb. Dean Sligh personally presented his nomination of Michael Henderson. Next meeting, based on supporting letters, we will make a selection.

DAVID JONES FOUNDATION GRANT: Julia Golden, curator of the University of Iowa Repository, gave a presentation on a program of collecting opportunities for children with an informational booklet to be used for identification and recording their finds. The university is designing the booklet and will implement the program. The project's ideas could then be exported to other areas of the country. A motion was carried that the Julie's team continue to fine tune the project.

BOARD MEMBER: Alberta Cray was elected to replace Tom Walsh, who passed away in December, as Director to 2005

MAKE PLANS FOR EXPO

We hope many of you are making plans to attend Expo this year. It's always a good time as well as a great chance to add to your collection through purchases or trades. If you haven't already made your table reservations, be sure to do it soon. Tables always go fast. There is a fee for table reservations, but admission to the show is free.

RAYMOND STANISZ PASSES AWAY

Kay Harpold sent an e-mail to let us know that MAPS member Raymond Stanisz passed away on January 2. Raymond was a long-time member, and we extend our deepest sympathy to Judy, Chris, and Ray, Jr.

FROM THE PRI

December 30, 2002

Dear Sharon,

It is a pleasure to acknowledge MAPS's recent gift of $500 to Museum of the Earth Capital Campaign at the Paleontological Research Institution. Your gift will make a meaningful difference in advancing knowledge of the history of life on Earth and is greatly appreciated.

Thank you for your support.

Sincerely, Warren D. Allmon, Director

Dear Sharon,

It is a pleasure to acknowledge MAPS's recent unrestricted gift of $250 to the Paleontological Research Institution. Your gift will make a meaningful difference in advancing knowledge of the history of life on Earth and is greatly appreciated.

As a donor, you are part of a dedicated group of friends who realize the value of unrestricted support. Funds contributed to PRI without restriction afford us the greatest flexibility in meeting our financial obligations. The support received this past year alone has resulted in a stronger organization, better equipped to actively focus on and execute our fourfold mission: education, collections, research and publications.

Thank you for your support.

Sincerely, Warren D. Allmon, Director

Sharon—Thanks so very much for MAPS's continued support!

FROM THE PALEO SOCIETY
January 13, 2003

Dear Ms. Sonnleitner:

On behalf of *The Paleontological Society*, I would like to thank you and the Mid America Paleontological Society for your generous donations to the *PS* Student Scholarship Fund and the Strimple Award Fund. Both of these funds help to secure the future of paleontology, as young, budding paleontologists are encouraged both from amateur paleontologists recognized with the Strimple Award and by supporting student research. Thank you so much for partnering with *The Paleontological Society* on these most important initiatives.

Cordially,
William I. Ausich
Professor of Geological Sciences
The Paleontological Society, President

BOOK REVIEW
By Lee J. Cary
From Bone Valley Fossil News, 8/02. Ed Holman, ed.

***COMMON FOSSIL PLANTS OF WESTERN NORTH AMERICA*, Second Edition**
By William D. Tidwell
Smithsonian Institution Press, 1998, 299 pages

Most fossil guidebooks give only limited space and attention to fossil plants. Many collectors do not have an opportunity to collect plant remains and, when fossil plants are collected, they frequently are difficult to identify. This book introduces the reader to the field of paleobotany and to the identification and study of fossil plants. It serves as a helpful guide to both the professional and nonprofessional collector. Plants including ferns, evergreens, flowering plants, grasses, hardwoods, and much more are covered in this book with hundreds of drawings and hundreds of photographs showing how actual specimens look. As the author points out, splitting a rock and finding part of a fossil plant inside is like opening a Christmas package.

When a rock containing a fossil leaf is split, one-half of the rock offers a nearly complete leaf and is referred to as the positive side. The other half of the rock shows the impression of the fossil leaf. This is the negative side. In the case of casts and molds, the cavity where a stem or root decayed leaves a mold of the specimen. The filling up of the cavity results in a cast of the stem or root. Fossil plants also are preserved by petrifaction. This refers to the mineralized remains of plants and trees where minerals replace the organic material. This makes it possible to study the internal structure of these petrified specimens.

While many collectors may be interested in collecting and studying petrified wood, they may not be willing to go through the necessary procedure to identify the specimens they collect. The only reliable way to identify petrified wood is to study thin sections that have been prepared by using a rock saw and grinding wheels. While the process is not difficult, it does call for preparing these thin sections and then studying them under a microscope.

While this guide is focused on western North America, it can be used by collectors in other parts of the country because many of the trees, leaves, and seeds are found throughout the United States. Readers will be most interested in the drawings and photographs of fossil leaves and seeds found in this book. There are fifty-eight pages of plates with six photographs to a page. Over half of these plates are devoted to fossil leaves, nuts, and cones. The other plates offer sectional cuts of petrified wood that are paper thin and viewed under a microscope.

In addition to these hundreds of photographs, there are hundreds of drawings throughout the book, particularly of leaves, which help the collector identify specimens. Near the end of the the book is a twelve-page "outline Key" which shows the outline of various ferns, seed-like structures, leaves, and stem surfaces and indicates where each is discussed in the book. A twenty-one page glossary will acquaint the reader with the terms used in the study of fossil plants. Anyone interested in paleobotany will want to see and make use of this book. First published in 1975, this second edition includes over 300 new or modified illustrations

The hardcover book is not readily available, but the paperback edition can be found in bookstores.

The author, William D. Tidwell, holds a doctorate in geology and botany from Michigan State University and serves on the faculty of the Department of Botany and Range Science, Brigham Young University, Provo, Utah.

TYRANNOSAURUS AND *TRICERATOPS*, HISTORY OF THE HELL CREEK

BY Derek J. Main
From *The Fossil Record*, 1/03. Cliff Barnes, Ed.

Some of the greatest dinosaurs known to our society are the giants recovered from the Late Cretaceous rocks of the Hell Creek Formation. The mighty *Tyrannosaurus rex* and the enigmatic *Triceratops* are Hell Creek dinosaurs along with *Edmontosaurus*, *Anatotitan*, *Torosaurus*, *Ankylosaurus* and members of the *Troodontidae*, *Dromaeosauridae*, *Ornithomimidae* and *Hypsilophodontidae*. It is hard to think about dinosaurs being a part of our culture. However, all of these dinosaurs were discovered within the last one hundred years. One of America's early paleontologists, Barnum Brown of the American Museum of Natural History (AMNH) in New York, was the first to explore the rocks of the Hell Creek at the turn of the 20th century.

In 1902, Barnum Brown was sent to Montana to investigate the reported occurrence of large bones eroding from a series of rock outcroppings along one of the tributaries of the Missouri River. These bones were reported to Henry Fairfield Osborn of the AMNH by Dr. W.T. Hornaday of the Bronx Zoological Garden. Dr. Hornaday would take his vacations in Montana along the Missouri River. While there, he often found large bones, some of which he returned to New York with him as souvenirs. One of these souvenirs he used as a paper weight on his desk. It was this "paper weight" that he chose to show to Osborn of the AMNH for identification. Osborn identified the bone as a *Triceratops* horn core. He immediately dispatched Brown to investigate the area.

The Hell Creek is a small tributary of the Missouri River occurring in the northeastern part of Montana. It was named Hell Creek presumably due to the hellish appearance of the badlands that occur in the region. The barren badlands have immense expanses of dry sand strewn rocky terrain with numerous rocks of various shades of red, brown, grey and black, all overshadowed by massive buttes. When Brown investigated the region, he names the Cretaceous rocks of the area for the tributary, the Hell Creek Formation. The rocks of the Hell Creek Formation are from the end of the Creatceous period (about 65-68 million years ago) and consist primarily of fluvial channel sandstones and floodplain mudstones and claystones. Brown named the floodplain deposits "dinosaur clays" due to the abundance of dinosaur fossils found within them. Dinosaurs are so abundant in these clays that weathered, broken remains of these animals litter the ground. The most common fossils found are the teeth of the cerapodans; *Triceratops* and *Edmontosaurus*. Brown found numerous *Triceratops* remains and on his first trip to the region , he made the monumental discovery of *T-rex*. With each consecutive field season in the Hell Creek, Brown recovered numerous dinosaur bones. Many of the dinosaurs that are now cultural classics were discovered by Brown and his teams between 1902 and 1906. Few, if any, paleontologists since have found as many dinosaurs in a relative brief period of time as he.

Since the pioneering days of Brown, many paleontologists have returned to explore and study the rocks of the Hell Creek. Since the Alvarez (1980) paper on an asteroid impact at the end of the Cretaceous (K/T), many have come to the region to look at the K/T boundary. The K/T is preserved at the uppermost contact of the Hell Creek Formation and the Tullock Formation. The boundary is in a coal bed called the z-coal. No dinosaur (non-avian) bones are found within or above this coal bed. Brown was the first to realize this, perhaps one of his most profound discoveries. The apparent abrupt extinction of the non-avian dinosaurs in the Hell Creek was interpreted by many of the asteroid-impact supporters as validation of the Alvarez theory. As the Hell Creek is one of the most complete terrestrial Late Cretaceous stratigraphic sections in the world, one would think that it would offer the best view into non-avian dinosaur extinction. However, it only represents one region of the world and thus not a global view.

Although the impact of an asteroid at the end of the Cretaceous is no longer debated, the nature of non0avian dinosaur extinction is still questioned and researchers still look toward the Hell Creek for

the answers. Currently crews from the Museum of the Rockies, led by Jack Horner, are working in the Hell Creek along with teams from the Smithsonian, UC-Berkeley, the Dallas Museum of Natural History and many others. Jack Horner's field teams are working no less than eight *T-rex* sites! Horner's work in the Hell Creek has unveiled more *T-rex* than anyone else, even Brown. Each consecutive field season, the Hell Creek produces more amazing discoveries. The Hell Creek is certainly one of the best studied Late Cretaceous formation, one of the most historic formations and continues to be one of the best sections of rocks to look at for answers to the end of the age of dinosaurs.

MOVE OVER *S U E*

By Dean L. Sligh

Sure, we all know you're the best known, most popular T-Rex in the world today, but *get ready...* in the next several years... to begin sharing the spotlight with your lesser known cousin, Jane. She is also a member of the *Tyrannosaurus* family and lived 65-67 million years ago in the late Cretaceous Period, the twilight of dinosaurs' time on Earth.

Today, there are only about 35 whole or mostly whole Tyrannosaurid skeletons known in the world. The first Tyrannosaurus *rex* fossil was discovered in 1902 by the famous fossil hunter Barnum Brown. It was named by Henry F. Osborn in 1905.

The only other skeletal remains found to date that resembles Jane is a skull, about 22 inches long, found in Montana in 1942. It was named Nanotyrannus, meaning "Pygmy Tyrant", by paleontologists M. Williams, R. Bakker, and P.J. Currie in 1988. It is now on display in the Cleveland Museum of Natural History.

Many dino experts disagree as to just what a Nanotyrannus is. Some, such as Dr. Robert Bakker, have no doubt she is a separate species within the Tyrannosauridae family. Others feel that Nano may be a *juvenile* of a different species of Tyrannosaurus, possibly *T. rex*. You can pick up interesting bits and pieces of this ongoing controversy on the internet.

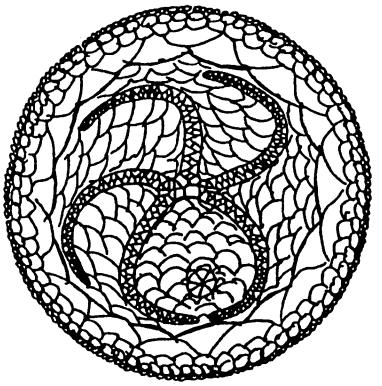
This is the first of a five-part series of articles which will appear in the M.A.P.S. Digest to help familiarize non-professional paleontologists, like myself, with what is being called one of the 10 most important discoveries in the dino world in the past 100 years. Jane was discovered and excavated in the summer of 2002 by a group of volunteers from the Burpee Museum of Natural History under the leadership of Paleontologist Michael Henderson. The material was transported to the museum in Rockford, Illinois, where it is currently being prepared for exhibit in 2005.

Jane's larger cousin, Sue, played a major role in popularizing the Tyrannosaurus *rex* family of dinosaurs and will continue to do so from her prominent position of display in the Field Museum in Chicago. She was discovered in a very dramatic sequence of events by Sue Hendrickson on a foggy August 12, 1990 in South Dakota. On that particular morning, Sue had declined an offer to ride into town with Peter Larson to get a tire repaired on the truck his excavation crew was using. They would be leaving this dig site in a few days and she wanted to explore a cliff she had seen in the distance several weeks earlier. Due to the fog she spent the first two hours walking in one big circle, ending up right back where she had started! Not one to give up easily, she waited till the fog lifted and once more started her journey to the 60 foot high formation. Shortly after getting there her perseverance was rewarded. She spotted a small group of bones and, looking up the side of the slope, at only about 8 feet high, there were three large dinosaur vertebrae and a femur protruding from the cliff. She had just discovered the largest, most complete Tyrannosaurus *rex* skeleton ever found!

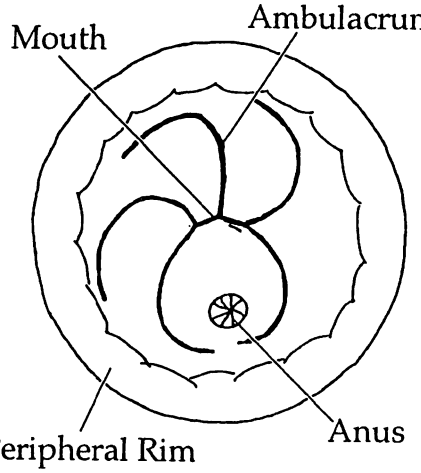
SOME EDRIOASTEROIDS OF THE CINCINNATIAN

Compiled by Colin D. Sumrall

Reprinted with permission from the Dry Dredgers, An Association of Amateur Geologists and Fossil Collectors

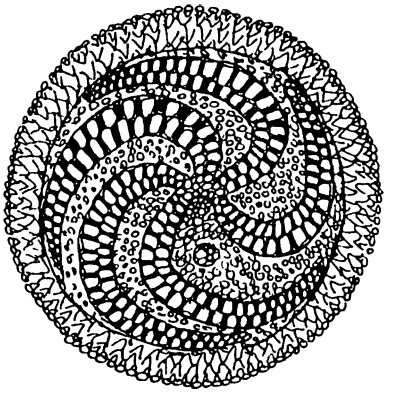


Edrioasteroids are extinct members of the phylum Echinodermata that today includes such marine organisms as starfish and sea urchins. Like all echinoderms, the skeleton of an edrioasteroid is composed of a large number of elements called "plates." Edrioasteroids are relatively uncommon fossils in the local Cincinnatian strata, but when discovered, they generally are found in fairly large numbers.

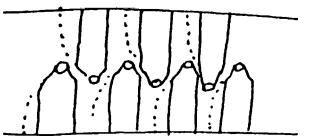


Edrioasteroids have a relatively simple body plan that is composed of a "theca," or main body, made up of scale-like plates. The theca is always attached by a ring called the "peripheral rim" to a hard object like a brachiopod shell or hardened sea floor. On the surface of the theca are five arms called "ambulacra" that radiate from a central mouth. The anus is typically a large cone made of small triangular plates. Differences in the ambulacral curvature and the plating covering the ambulacra and the mouth form the basis for telling apart species of edrioasteroids.

Streptaster vorticellatus

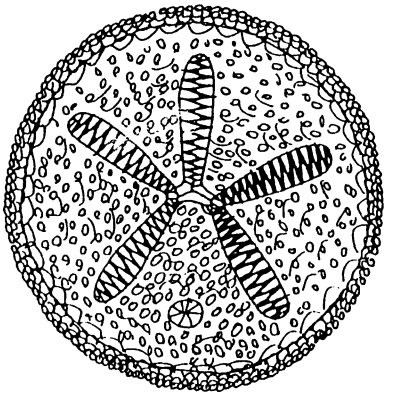


Cover Plates



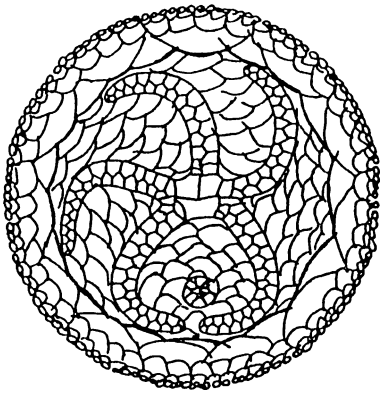
Typically, *Streptaster vorticellasus* is a small and rare edrioasteroid with prominent ambulacra that all curve counterclockwise. The theca is covered by small plates with small bumps, and the widely spaced cover plates are tall with small spines at the tip.

Cystaster sp.



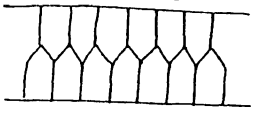
Cystaster is a small edrioasteroid characterized by high, straight ambulacra that are very wide. The theca can be circular to nearly pentagonal. *Cystaster* is represented in the Cincinnatian by two species that are very difficult to tell apart.

Carneyella



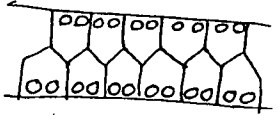
Carneyella is characterized by wide ambulacra, four of which curve in a counterclockwise direction and the fifth, clockwise. The ambulacra have a single set of alternating cover plates. The mouth is covered by three very large plates, and the three species found locally can be distinguished from each other by the number of bumps on the cover plates.

Carneyella pilea



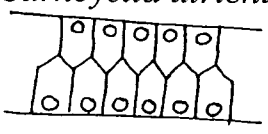
Carneyella pilea is the common species of *Carneyella* an is the second most common of Cincinnati's edrioasteroids. It has smooth thecal plates and smooth cover plates with no small bumps.

Carneyella faberi



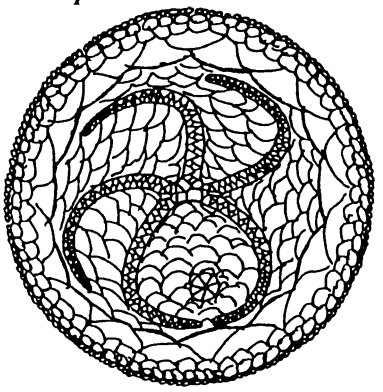
Carneyella faberi looks almost exactly like *Carneyella pilea* except that the surface is covered with small bumps and there are two bumps on each cover plate.

Carneyella ulrichi



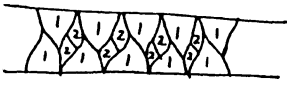
Carneyella ulrichi looks like *Carneyella pilea* except that the theca is covered with large bumps and there is one bump on each cover plate.

Isorophus cincinnatiensis



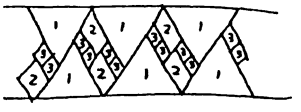
Isorophus cincinnatienis is the most common of Cincinnati's edrioasteroids. Four of its slender ambulacra curve counterclockwise and one curves clockwise. The easiest way to distinguish *Isorophus* and *Carneyella* is to look at the mouth and the ambulacra. *Isorophus* has four small plates over the mouth and thin ambulacra, whereas *Carneyella* has three large plates over the mouth and wide ambulacra.

Cover Plates



Isorophus cincinnatiensis has two sets of cover plates – large ones, marked "1" in the drawing above, and small ones, marked "2."

Curvitriordo sp.



Curvitriordo looks like *Isorophus* except that there is a third set of cover plates on the ambulacra, marked "3" in the drawing above. There are several species found locally, and they may be more common than previously recognized.

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

Eric Kendrew
4436 Tevalo Drive
Valrico FL 33594
813-681-4350
fx 813-685-0425
KTREX911@tampabay.rr.com

Capt. Hillsborough County Fire Rescue. Collecting since 1954. Will trade. Interested in all fossils. Check web site for trade items: www.geocites.com/fossilstore. Member of Bone Valley Fossil Soc.

Vance McCollum
207 Chuker Dr.
Summerville SC 29485
843-821-9500
earthrelics@sc.rr.com

Retail/Wholesale Jewelry Manufacturer. Interested in all aesthetically beautiful fossils. Will not trade. Wants to learn about interesting fossil discoveries in all parts of the world.

PaleoTools
Bill & Jane Murray
3670 North 800 West
Pleasant View UT 84414
801-737-4623
fx 801-737-4639
bill@paleotools.com

Retired engineer. CEO of PaleoTools. Major interest vertebrate paleo. Member of Utah Friends of Paleo in Utah, Soc. Of Vert. Paleo.

Jim Preslicka
1439 Plum Street
Iowa City IA 52240
319-341-6688

Route Driver. Will trade. Major interest cephalopods and other molluscs. Bulk of his cephs are Ord., Dev., Cret. He also has a fairly extensive collection of Lower Paleozoic fossils--brachs, bivalves, cephs, etc., esp. local Cedar Valley Group fossils. Wants to meet other collectors and go on group field trips.

PLEASE NOTE THE FOLLOWING CHANGES OF ADDRESS OR CORRECTIONS:

John H. Hunter II
5223 W. Alderwood Ave.
Spokane WA 99208
jhunterii@comcast.net

Northwest Airlines. Will trade. Interested in trilobites, crinoids, ammonites, and Solnhofen fossils. Interested in taphonomy and depositional environments of fossil preservation.

Thomas C. Williams
2122 14th St
Peru IL 61354
815-223-9638

Geohydrologist. Will trade. Major interests echinoderms, Ordovician period fossils, shark teeth, Mazon Creek fauna.

Robert C. Wolf
3521 10th Ave. North
Ft. Dodge IA 50501
515-955-2818
midnightwriter@dodgenet.com

Free Lance Author and Speaker. Author of Fossils of Iowa and Iowa's State Parks, both from Iowa State Press. Wants to share information on sites. Very interested in trading. Has a lot of Cambrian to Permian and some Cretaceous flora and fauna to trade.

Alan, Debbie Goldstein
& Emily
1607 Washington Blvd.
Louisville KY40242-3539
502-426-4399
wk.812-280-9970
rockscaper@insightbb.com
wk: agoldstein@dnr.state.in.us

Park Naturalist/Assistant Property Manager. Collecting since 1966. Current study areas: Paleozoic corals, Osagean crinoids, Borden delta faunas. Interested in most Paleozoic fossils. Will help visitors collect in area with advance notice. Have Ord.-Miss. Invertebrates for trade. Wants to diversify collection for classes, programs and personal research. Coordinates the Falls Fossil Festival in Clarksville, IN.

ADVERTISING SECTION

Ads are $5.00 per inch. Send information and checks payable to MAPS to : Mrs. Gerry Norris, 2623 34th 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 15th 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.

2003 CENTRAL ILLINOIS FOSSIL SHOW
March 25-29
Macomb Inn (Days Inn)
1400 N Lafayette, Macomb, Illinois

Tues., Mar. 25—Afternoon
Wed., Mar. 26—All Day
Thurs., Mar. 27—All Day
Fri. & Sat., Mar. 28-39—After MAPS Hours or by Appointment

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
1014 West Highway C, Mosinee, WI 54455
715-457-6634; Ribriver@TZnet.com

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

The **M**id-**A**merica **P**aleontology **S**ociety (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 I 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/

President:	MarvinHoug, 3330 44th St. NE, Cedar Rapids, IA 52402
1st Vice President:	Dale Stout, 2237 Meadowbrook Dr. SE, Cedar Rapids, IA 52403
2nd Vice President:	Gilbert Norris, 2623 34th Avenue Court, Rock Island, IL 61201
Secretary:	Open
Treasurer (Send Dues To):	Sharon Sonnleitner, 4800 Sunset Dr. SW, Cedar Rapids, IA 52404
Membership:	Dale Stout, 2237 Meadowbrook Dr. SE, Cedar Rapids, IA 52403
Directors:	Allyn Adams (03), Blane Phillips (04), Alberta Cray (05)

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 SOCI-
ETY