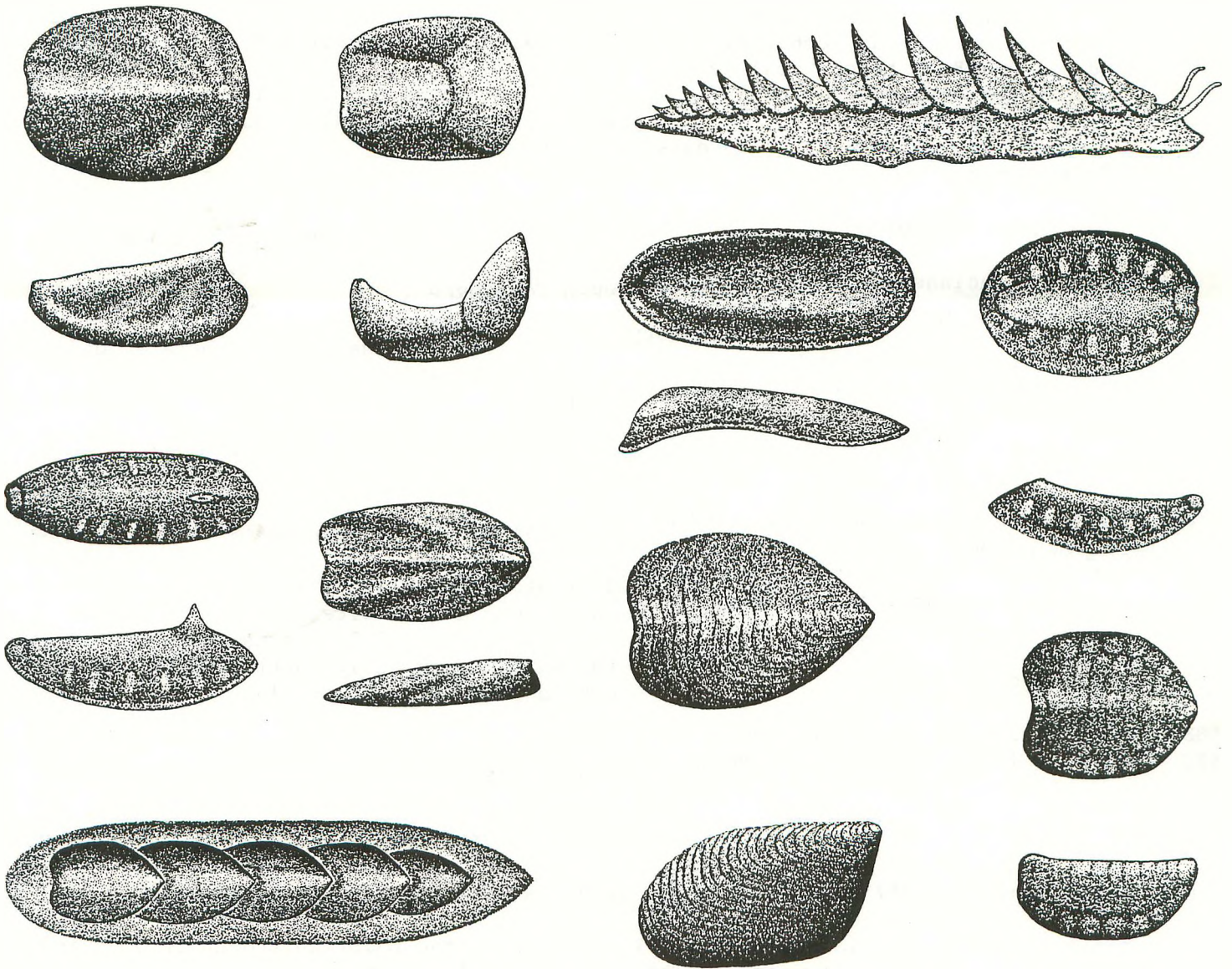


M.A.P.S *Digest*

Official Publication of
Mid-America Paleontology Society

Volume 10 Number 4
April, 1987



Newly Discovered, Undescribed, Primitive Mollusks From The Missouri Ozarks ©

MARK YOUR CALENDARS

11 Apr MAPS MEETING --Cedar Rapids Gem and Mineral Show, Cedar Rapids, Iowa
IBEW Hall, 1211 Wiley Blvd. S.W.
just off old Hwy 30

PLEASE TAKE NOTE

Did you note the address label of your March issue of your DIGEST?

1:00 Board Meeting--All Systems GO
Begin the Countdown to EXPO IX
2.00 Cedar Rapids in Charge

The date indicates the status of your paid-up dues.

Treasurer, Marvin Houg
330 - 44th St. NE
Cedar Rapids, IA 52404

24 Apr MAPS INTERNATIONAL FOSSIL EXPOSITION
25 Western Illinois University, Union
26 Building, Grand Ballroom, Macomb,
Illinois

has a request. EXPO gets to be hectic some-times for the Treasurer. Marv would like you to send your dues before you get to EXPO.

If you are there by 8:30 a.m. you will see many of your friends. It's 3 days of continuous euphoria, utopia and bliss. Back to the real world late Sunday afternoon or Monday.

Your help will make his life much simpler.

One couldn't stand more than 3 days of it anyway.

So, if your dues tag is still marked 1986, pop a check in the mail. Hurry, it's almost time for EXPO.

EXPO IX -- ECHINOIDS

Many Thank You!!

12 Jun Bedford, Indiana, Bedford Rock Swap
13 4-H Fairgrounds
14 2:30 MAPS Meeting -- Indiana Society of Paleontology, I.S.P., a Chapter of MAPS will Host the Meeting.

NEED YOUR HELP

Someone from Wisconsin sent a note about a room reservation and a pick up at the airport.

GOOD SHOW!

Will that party please call M. Lillybeck
309-764-0921.

14 Oct FOSSILMANIA -- Ladybird Johnson Park
15 Fredericksburg, Texas
16 Hope they have a potatoe bust. I've never been to one, but it sounds like a good time.

More later.!

21 states have a state fossil. Wisconsin has just named a trilobite, Arizona is working on petrified wood. Illinois has a contendor with the Mazon Creek Tully Monster. This would make an interesting article.

1988 April 22, 23, 24 EXPO X Macomb, IL
1989 April 14, 15, 16 EXPO XI , Macomb, IL

Anyone out there want to write an article on state fossils?

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COVER: Copyright c 1987 by Guy Darrough, 3619 West Maline, St. Louis, MO 63121

Strange and enigmatic mollusks are turning up in the Cambrian and Lower Ordovician cherts of the Missouri Ozarks. The biological blueprints of these primitive animals go beyond anything living or extinct.

Life in the Cambrian and Lower Ordovician rocks of Missouri seems to have an explosion of bizarre life forms--almost every shell shape was experimented with and within a very short time most became extinct. It was not until the Middle Ordovician that life becomes more standardized. Researchers of this period refer to it as Cambrio-Ordovician.

These fossils show remarkable preservation of soft parts and are three-dimensional. Most fossils from other formations of this period are flattened by pressure. These unusual ecosystems were thought to be deep pockets on the sea floor, which held sufficient water during low tides to support crowded experimental faunas.

In the past few years of intensively collecting these localities, my horse and I have discovered over 25 undescribed mollusks and it seems to be just the tip of the iceberg.

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ECHINOIDS -- EXPO IX

A couple weeks ago we journeyed to Peoria to See the Bob Coopers' Marine Museum. Larry Wiedman, Department of Geology, Monmouth College, Monmouth, Illinois, was there. His comment was, Madelynn, you said it would be great, but I had no idea it would be this great.

Of course, my next comment was, it's the same with EXPO. How to tell those people who come for the first time just how great, how unbelievable it really is. Guess what he said. Tell them, last year was the first time for me and I took \$150 and said to myself that will be plenty. This year I am taking \$1000.00.

Now it's kind of a shame to put The EXPO in terms of \$ and ¢. But when one tries to tell someone who has never been there, it is almost impossible. I rather doubt anyone has enough \$ and ¢ when one arrives.

But EXPO is more than that. This year there will be a movie produced by Porter M. Kier, retired, National Museum of Natural History. This movie will be narrated by Frederick Collier, Collections Manager, Department of Paleobiology, National Museum of Natural History. Part of this movie has been seen on national TV networks. Mr. Collier will make comparisons between morphology and taxonomy of living and fossil Echinoids. What a treat we have in store. What a lot we will learn.

Dr. Frank and Enid Holmes of Heathmont, Victoria, Australia will also be guests at EXPO. Dr. Holmes will speak to us about Australian Echinoids. Dr. Holmes is Secretary and Editor to a Paleontological organization in Australia which is very similar to our own MAPS. Fossil Collectors Association of Australasia became an organization at almost the same time as MAPS. The Holmes have been MAPS members for many years. Another treat in store!

The third speaker will be Dr. Donald G. Mikulic, Illinois State Geological Survey, Champaign, Illinois. Elsewhere in this issue of MAPS DIGEST you will see an article on the recently discovered Silurian biota in Wisconsin. This is a preservation of soft-bodied fauna. Dr. Mikulic has asked to speak not only to inform us but also to make certain the record of this unusual biota is clear. Dr. Mikulic will make a soft-bodied fauna fun!

It is inevitable there will be a great deal of interest about the material which has been shown to us on the cover of this DIGEST. We may not find out too much more for 5 years or so, but EXPO could very well be the catalyst for the study.

It all causes goose bumps. Crystallize your plans and join in the fun and camaraderie of EXPO IX. You'll be glad. See you there!

A D V E R T I S I N G S E C T I O N - -

Again we have selected a few spectacular reproduction fossils from our vast collection. We feature extremely high-fidelity and finish on our product. Satisfaction guaranteed. Add \$3.00 each item for shipping, excess refunded. Lists are available.

Asaphus raniceps an unusual 2" trilobite on matrix from the Ordovician of Russia.
RT66 \$10.00

Selenopltis sp. a giant and bizarre 6½ x 5" trilobite on matrix with many 2" spines from Morocco. RT84 \$25.00

Tylocidaris clavigera a spectacular and rare urchin with club-like spines all on matrix from the Cretaceous of England.
RE29 \$10.00

Loriolaster mirabilis an excellent 5 x 6" pyritized sea-star on matrix from the Devonian of Bundenbach, Germany.
RE31 \$15.00

SEE US AT THE MAPS SHOW IN APRIL

Mid-Land Scientific Service, P. O. Box 601, Stryker, Ohio 43557

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Q-O AVAILABLE

Quaternary O, a super cleaning agent for releasing specimens from a clay-rich matrix. Sold in pint-size container at \$15.00 each. Orders for 10 or more \$12.50 each.

New York residents add sales tax. Shipping: \$2.50 and .50 for each addition. Save by buying at the MAPS EXPO in April.

Send check or money order to:

Gary Rakes
P.O. Box 26800
Rochester, NY 14626

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KEYS TO IDENTIFY PENNSYLVANIAN FOSSIL PLANTS OF THE MAZON CREEK AREA

Published by ESCONI 60 pages 8½" x 11". Over 330 original drawings showing major plants with characteristic roots, bark, cones, seeds fronds, and leaves.

Jerry Prepp, 5858 Woodward, Downers Grove, Illinois 60516

Illinois \$8.50

Out-of-state \$8.00 Foreign add \$1.00
Air Europe add \$3.00 Australia \$4.00

We'll Be At EXPO.

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WINDOWS OF THE PAST

Larry Wiedman, MAPS 1st Vice President, enthusiasm personified, has volunteered to keep MAPS members informed about new publications, old ones, too, which he thinks might be of interest to MAPS members.

A GEOLOGICAL MISCELLANY, G. Y. Craig and E. J. Jones, Princeton U. Press, Princeton, New Jersey.

HOW TO DEEP FREEZE A MAMMOTH. Björn Kurten, Columbia University Press.

THE RIDDLE OF THE DINOSAUR. John Noble Wilford, Alfred A. Knopf

Larry brought these books at the last MAPS Meeting, but there were no prices.

Contact your nearest book store, or your library for more complete addresses and a price if you choose to order yourself.

We will include price when it is available.

Thank you, Larry Wiedman

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NEWS BULLETIN -- All 180 tables sold for EXPO. All available space for displays accounted for. Call just received. Good Job!

What an EXPO it will be.

MARKET TEST

A few copies of the Membership Directory and a few copies of the EXPO EDITION of the DIGEST will be spiral bound and a thin piece of plastic front and back added for protection.

These two pieces cost \$1.60 extra, should you decide to get them.

This is simply a measure to see if it is something which might be repeated for everyone in the future.

If you should want a copy of either of these protected printouts, request a copy at the Registration Desk. The binding on the Membership Directory will cost \$.60. The plastic and binding on the EXPO EDITION will cost \$1.00.

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WELCOME NEW MAPS AFFILIATE

The ALBERTA PALAEOLOGICAL SOCIETY has been registered as an affiliate of MAPS.

First contact person:

KAREN WEINHOLD - Librarian
P.O. Box 7371
Station E
Calgary, Alberta,
CANADA T3C - 3M2
403-274-3576

Second contact person:

LESLIE R. ADLER - Liaison Officer
Address Above
403-289-9972

Meeting times 3rd Friday of the month, except June, July, August, in Room 1032 (Rock Lab), Mount Royal College, 4825 Richard Rd. S.W. Calgary, Alberta T3E 6K6

Field trips June, July, August. Palaeozoic Canadian Rockies, Mesozoic Plains.

Lesli writes, Several of our members already belong to MAPS and some members of MAPS (US residents) have joined our group.

We attempt to publish 4 bulletins per year.

(Ed Comment. If you have gone on the May field trip last year, and I think the year before, you have met some of these delightful people.

A special welcome to each of you. Maybe someday MAPS can have a July field trip in Alberta. Sounds good!)

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SPRING SYSTEMATICS SYMPOSIUM

Saturday May 9, 1987, Field Museum of Natural History, Roosevelt Road at Lake Shore Drive, Chicago, IL 60605
312/922-9410

EVOLUTIONARY IDEAS OF PROGRESS

Registration begins at 7:30. Speakers have 30 minutes. The first speaker begins at 9:00 a.m. and a panel discussion ends the Symposium at 4:45 p.m.

Stephen J. Gould speaks at 4:15 p.m.

If you are interested in this Symposium Call M. H. Nitecki, Symposium Chairman, address and phone number above to make your registration.

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ONE MORE THING

Please remember to pick up your DIGEST and Membership Directory at the EXPO. They are heavy to mail.

If you can take a copy for a friend, that will help also.

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A SOFT-BODIED SILURIAN BIOTA

The Summer issue of MAPS DIGEST, Volume 9 Number 6, featured a cover and story of a Silurian soft-bodied biota found in Southwestern Wisconsin by Jerry Gunderson and Ronald Meyer, MAPS members from Middletown Wisconsin. This turned out to be a most spectacular fossil discovery.

Donald G. Mikulic, Illinois State Geological Survey, Champaign 61820, Derek E. G. Briggs, Department of Earth Sciences, Goldsmiths' College, University of London, London SE8 3Bu, England, and Joanne Kluessendorf, Department of Geology, University of Illinois, Urbana 61801 have published at least 2 papers concerning this biota.

The Abstract from the 10 May 1985, Volume 228, pp715-717 issue of SCIENCE reads:

A new Silurian (Llandoveryian) biota from Wisconsin with a significant soft-bodied and lightly sclerotized component is dominated by arthropods and worms. The fauna includes the earliest well-preserved xiphosure, a possible marine uniramian, three new arthropods of uncertain affinity, and possibly the first Paleozoic leech. This may be only the second locality to yield a conodont animal. Lack of a normal shelly fauna suggests an unusual environment. The discovery adds significantly to the few such exceptionally preserved faunas known from Lower Paleozoic rocks.

From Phil. Trans. R. Soc. Lond, B 311, 75-85 (1985)

Non-mineralized skeletons and soft tissues are rarely preserved in the fossil record. No soft-bodied biotas approaching the diversity of the Middle Cambrian Burgess Shale or Upper Carboniferous Mazon Creek biotas are yet known from Silurian rocks. An exceptionally preserved biota recently reported by us (Mikulic et al., 1985) from the Llandoveryian of Waukesha County, Wisconsin, however, adds significantly to the record of Silurian soft-bodied organisms. . . .

The biota occurs in Llandoveryian Brandon Bridge strata, which compose a prominent Silurian unit in the Milwaukee-Chicago area. (The Silurian stratigraphy of southeastern Wisconsin is being revised and the names used in this paper are therefore informal.) Throughout most of its extent, the Brandon Bridge unconformably overlies Kankakee Dolomite and grades upward into Waukesha Dolomite. The Brandon Bridge is predominantly a thin-bedded, light green to pinkish gray argillaceous dolomite but locally the lower half is a conspicuous dark reddish-brown colour, (Mikulic 1977). . .

The unique stratigraphic and sedimentary setting of the Waukesha locality presumably controlled the preservation and possibly the distribution of the biota, and therefore further occurrences are unlikely to be found at other exposures in the area which do not expose the scarp.

IF YOU COME TO EXPO IX, BE CERTAIN TO GATHER WHEN Dr. MIKULIC TELLS ABOUT THIS BIOTA

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WHERE DID THE NAME COME FROM? Bob King
Southern California Paleontological Society
January/February, 1987
Reprinted Austin Paleo Newsletter

(Ed Comment--when I first became a member of MAPS I wondered what all those names meant and started research to find out. Then I started work on the DIGEST and after that there never seemed to be time. I just love this article, I hope you do, also. I do not know Bob King, but Thank you, anyway.)

In the past, people have asked if I could tell them where the names of eras, periods, and epochs originated. I could not. After researching, I have arrived at the information below.

The names of various eras, periods, and epochs have evolved from many sources and cultures. Originally the name of a period was used to delineate or honor the area where the holotypes were collected. Because Greek is a more descriptive language than Latin, Greek was used to name the eras and epochs.

In some texts, the first era was noted as the Archean and in other texts it is noted as the Eozoic.

ARCHEAN	Greek; archaios (the beginning)
EOZOIC	Greek; eo (early + zoe (life))
PROTEROZOIC	Greek; protero (fore) + zoion (animal)
PALEOZOIC	Greek, palaois (old or ancient) + zoe (life)
Cambrian	Pertaining to the area known as Cambria, in Wales
Ordovician	Latin; Ordovices: Pertaining to the Roman name for an ancient Celtic tribe in Wales.
Silurian	Pertaining to an area in Wales that was presumed to be previously occupied by an ancient people called Silures
Devonian	Pertaining to the area of Devonshire, Devon, England
Carboniferous	Latin; carbo (coal) + ferre (to bear): Primarily used in Europe.
Mississippian	The first half of the Carboniferous. Mainly used in North America and is characterized by coal formations in the Mississippi region.
Pennsylvanian	The second half of the Carboniferous. In North America it is characterized by coal deposits in the Pennsylvania region.
Permian	Pertaining to the eastern province of Perm, Russia
MESOZOIC	Greek; mesos (middle) + zoe (life)
Triassic	Latin; trias (three): From the original three fold divisions of this period
Jurassic	French; jurassique: From the Jura mountain range between France and Switzerland
Cretaceous	Latin; creta (chalk): Pertaining to the massive chalk deposits of Devon, England.
CENOZOIC	Greek; kainos (recent) + zoe (life)
Tertiary	Latin; tertius (third)
Paleocene	Greek; palaois (old) + kainos (recent)
Eocene	Greek; eo (early) + kainos (recent)
Oligocene	Greek; oligos (small) + kainos (recent)
Miocene	Greek; meion (less) + kainos (recent)
Pliocene	(Greek; pleion (more) + kainos (recent))
Quaternary	Latin; quattuor (four)
Pleistocene	Greek; pleistos (most) + kainos (recent)
Holocene	Greek; holos (entire) + kainos (recent)

Please UPDATE Your Membership Directory -- These Names Will Need To Be ADDED to the New Membership Directory, which is already at the printer.

JOHNSON, Mark E., 13 Goldenrod Lane, Madison, WI 53719
SABO, Donald, 176 Woodfield Green S.W., Calgary, Alberta, CANADA T2W 3T9

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Please ADD The Following New Members to Your Directory

RONALD L. BOWN
419 Chestnut Neck Rd.
Port Republic, NJ 08241
609-652-7883

Electrical Engineer. Will trade. Major interest Silurian Fossils, Shark Teeth, Corals. Have Silurian Fossils from Southern New Jersey, Miocene Shark Teeth (Maryland). Have collected and studied fossils for 20 years. Your statement "A Love of Fossils Brings Us Together" says it very well.

BLOSSOMAE CAMPBELL
1134 North 28th St.
Bismarck, ND 58501
701-255-3658

Retired--was Administrative Ass't for Dept. of Human Services State of North Dakota. Will trade. Major interest fossils of Southwestern North Dakota. Have petrified wood, horn coral scaphites, belemnites. I am interested in fossils--also, editor of N.D. Paleontological Soc. Bulletin, PALEODISCOVERY.

RONALD CREWS
8828 Kathlyn Dr.
St. Louis, MO 63134

I would wish to join MAPS. I've been interested in fossils for years, and collecting for about 10 years. I grew up with Guy Darrough who is a MAPS member. I have known him and his wife, Doris, for about 28 years. Guy got me interested in fossils. My collection is growing all the time. My interest is in Ozark fossils and trilobites.

BOB GONDEK
11164 Marsha Place
Warren, MI 48089
313-758-6499

Loan Officer. Will not trade yet. Major interest invertebrates and plants. I would like to belong to a group with similar interests.

ROBERT D. HUBBARD
720 Poplar Lane
Gas City, IN 46933
317-674-5867

Clerk. Will not trade. Major interest crinoids, trilobites, Edrioasteroids, Cystoids. Former MAPS member, not in most recent Membership Directory. (Welcome back, Robert.)

ROY F. KINSLEY
26 Yorkshire Ln. Apt #3
Belleville, IL 62221

See you at EXPO IX!

MRS. RUTH A. KIRKBY
7621 Granite Hill Drive
Riverside, CA 92509
714-685-5818

Executive Director, Jurupa Mountains Cultural Center. No time to trade. Major interest Education, and Paleobotany.

BILL KRANZ
269 Timberbrook Dr.
St. Peters, MO 63376
314-278-4030

PATRICK MCCARTHY
1061 Hwy. 17 By-Pass, C-3
Mt. Pleasant, SC 29464
803-881-0064

Diving Contractor. Will trade occasionally. Major interest Vertebrate material. Shark Teeth (Carcharodon Megalodon). Interested in new channels for selling my specimens and acquiring others.

CARL & BARBARA MEARES
Route 3, Box 616
Fort Payne, AL 35967

MIKE MURPHY
3504 Clearmont
Odessa, TX 79762
915-362-4599

Former MAPS member. Renewing membership. Welcome back, Mike.

ALBERT R. OTIS
212 Waterman Ave.
North Providence, RI 02911
401-232-0638

Purchasing Agent at Health-tex Corp., Manufacturer of Children's clothing. Will trade. At This Time I have no paleontological specialty. All aspects of the science fascinate me. I like to do my own collecting whenever possible. Belongs to 2 fossil clubs: The Connecticut Fossil Club, and N.E. Paleontological Society. (Ed. comment--2 new fossil Societies. Send more information. Welcome to MAPS. You are the first Rhode Islander to join MAPS.)

JAMES L. PENDERGRAFT
17 Jeff Rd.
Largo, FL 33544
813-595-2661

Collecting for 15 years. Member of Florida Paleo, Southwest, and Bone Valley Fossil Clubs. Have found some very good fossil sites in Florida and have vertebrate, invertebrate, and marine fossils for trade. Have Badlands (SD) fossils for trade, too! Stop by if you are in the area!

FRANCES G. RADCLIFFE
43-929 East Circle Dr.
Indio, CA 92201
619-347-2806

Retired. Just Starting, cannot trade yet. Not decided major area of interest. Wants to educate interest in fossils.

MS. LAUREL WOODLEY
Prof. of Biology
L.A. Harbor College
1111 Figueroa Pl
Wilmington, CA 90744

Please ADD to OVERSEAS Membership

DR. F. O. KEPPELER
Werastrabe 8
7990 Friedrichshafen
WEST GERMANY

Doctor. Will trade. (This membership is thanks to Charles E. Howlett, 640 Iris Road, Casselberry, FL 32707).

ANOTHER CORRECTION -- arrived in the mail today

PIERRE GONIN, phone 819-770-0568 (CANADA) Mr. Gonin is in the Membership Directory. This editor made a typo in the March DIGEST, but it is correct in the Directory. Mr. Gonin's phone had not been received, however, so add to your new Directory. Thank you.

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.

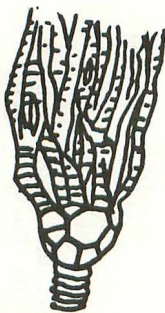
Membership in MAPS is open to anyone, anywhere who is sincerely interested in fossils and the aims of the Society.

Membership fee: January 1 through December 31: \$10.00 per household.

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

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

President: Gil Norris, 2623 34th Avenue Ct., Rock Island, IL 61201
 1st Vice President: Larry A. Wiedman, Monmouth College, Dept. of Geology, Monmouth, IL 61462
 2nd Vice President: Doug DeRosear, Box 125, Donnellson, IA 52625
 Secretary: JoAnn Good, 404 S.W. 11th St., Aledo, IL 61231
 Treasurer: Marvin Houg, 3330 44th St. N.E., Cedar Rapids, IA 52404
 Membership: Tom Walsh, 501 East 19th Avenue, Coal Valley, IL 61240



CYATHOCRINITES

MID-AMERICA PALEONTOLOGY SOCIETY

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

Dated Material - Meeting Notice

FIRST CLASS MAIL



Allyn & Dorris Adams
 612 W. 51st Street
 Davenport, IA 52806
 12/87