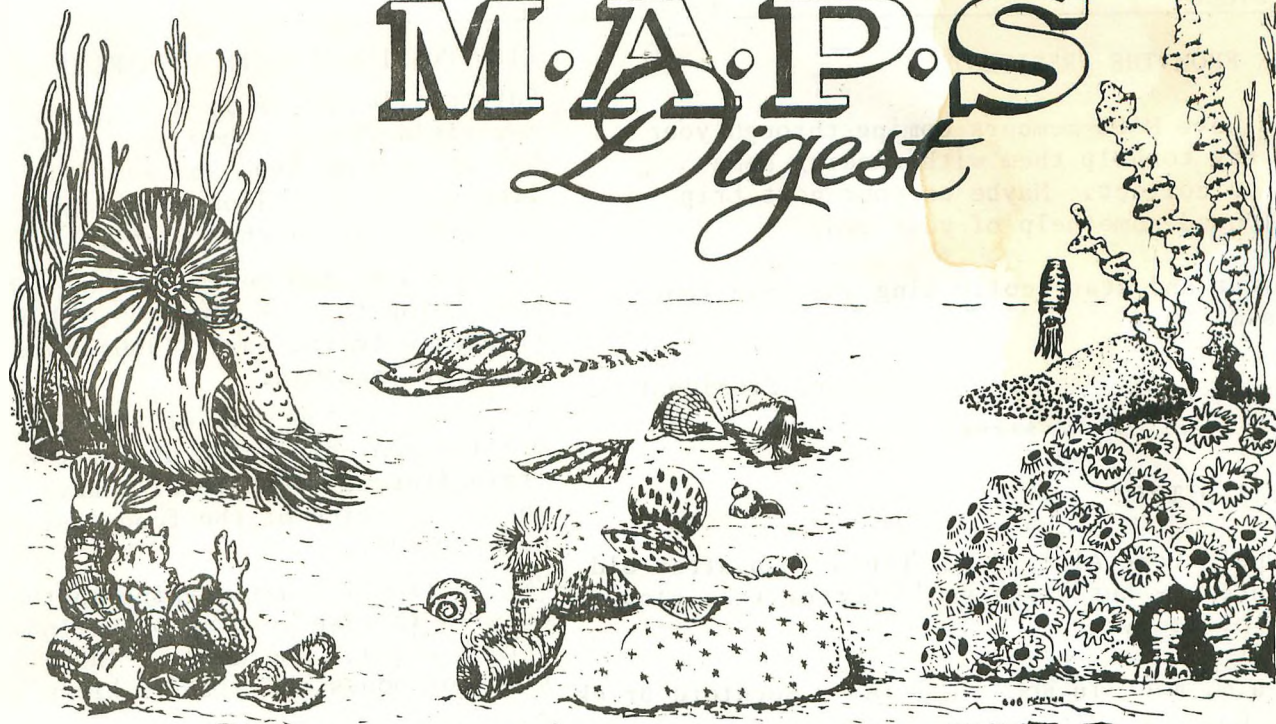


M.A.P.S. *Digest*



Official Publication of
Mid-America Paleontology Society

May, 1982

HELLO FROM YOUR PRESIDENT

It's all over for another year. This year's Expo was the smoothest running and largest ever. We had 36 tables filled with displays and 107 tables sold for swapping. There were 24 states represented and 2 foreign countries--Germany and Canada. There was a wide variety of fossils--everything from crinoid stems to slabs of complete crowns to skulls to trilobites. Everything was there--both common and rare. Everyone helped as much as they could. The ones too far away to help in pre-planning the Expo helped after arriving. Everyone I talked with planned on coming back--and bringing more people from their area--so next year will be even larger. Mark your calendar now! First weekend in April same place, same facilities. If you have any suggestions or new ideas for next year's show, please let me know so we can get to work on them.

We have some field trips planned for later this year to help everyone add to their collection. Also everyone has his own special collecting spots to go to. Please be sure to be very careful wherever you hunt. We don't want to receive word of someone being hurt, perhaps seriously, while hunting.

There is one other important thing to remember while collecting--always get permission

to hunt: whether it's a quarry, road cut, or a creek. This will help (hopefully) keep collecting sites open for the ones who collect after you. Keep the area clean--pick up your litter.
(continued page 2)

MARK YOUR CALENDARS

- 1 May MAPS Field Trip -- Rockford, IA
Rockford Brick & Tile Co. Clay Pit
11:00 a.m. -- See p. 2
- 5 June MAPS Meeting -- Augustana College
Rock Island, IL
1:00 p.m. Board Meeting
2:00 p.m. Wrap up of EXPO I.
- 18-20 June EASTERN -- Pittsburgh, PA
- 24-27 June MIDWEST -- St. Paul, MN
More page 2
- 8-11 July SOUTH CENTRAL -- AFMS, Houston, TX
- 6-7-8 Aug Bedford, IN -- Aug 6 - 8:30 Movie
1:00 p.m. MAPS Business Meeting
- 20-22 Aug NORTHWEST -- Pocatello, ID
- 28-30 Aug CALIFORNIA -- Long Beach, CA
- 17-19 Sept ROCKY MOUNTAIN -- Denver, CO

LETTER FROM THE PRESIDENT

If you have MAPS members coming through your area, try to help them with finding some areas to collect. Maybe on your next trip you'll need some help of your own.

So go out and start collecting and have yourself some fun.

Cheryl DeRosear, President

MAPS FIELD TRIP

Come One! Come All! First Field Trip after old man winter -- but maybe you'd better take along a pair of longys.

11:00 a.m. meet in Rockford, IA -- Rockford Brick & Tile Co. Clay Pit.

The Clay Pit is located on the West edge of Rockford on County Road D.

What we will be finding is several marine animals of Devonian age--gastropods, bryozoans, brachiopods, pelecypods, coelenterates and crinoid stems occasionally crinoids.

Don't forget your hard hats, your smiles--let's celebrate the end of winter!

This field trip is led by Doug and Doug. That's Johnson and DeRosear. See you there.

MIDWEST SHOW -- ST. PAUL, MN

In the April DIGEST we reported there would be no fossil dealer at the Midwest Show

HEAP BIG MISTAKE--Maloneys Fossils will be in St. Paul June 24-27.

Some MAPS members will be attending this show with competitive cases. There will be a field trip on Tuesday before the show. Get your reservations in immediately, however. This field trip is limited to 50 people.

The June MAPS Meeting will be a wrap-up of all information on EXPO IV.

Bring all reports to the June meeting and any suggestions to make Expo V even better. All bills should be presented by that time and results of Expo IV reported.

BIRD FOSSILS...CLUES TO LIFE OF EARLY MAN

Gainesville, FL (AP)--A study of bird fossils may yield clues to how bird migration started, how early man lived and what the climate was like nearly 2 million years ago, a University of Florida researcher says.

For the past two years, Diana Matthiesen has been going through about 50,000 bird fossils recovered in the early 1960s from the Olduvai Gorge in Tanzania.

The gorge is the site of the find of a 1.7 million-year-old-human ancestor known as Australopithecus. The fossils have all the characteristics of the food castoffs of known human sites...

"My feeling is that working on the Olduvai fossils is like working on an Indian midden (trash pile)," she said. "There are the same kinds of bones and similar kinds of birds."

The bones from Olduvai show the apelike creature that lived there ate "anything he could get his hands on," Ms. Matthiesen said. It was a question of what you could catch and what tasted good."

Shore birds, such as sandpipers and plovers, appear to be the biggest bird item in the diet. A few wading birds, such as herons and flamingos, were found, but few hawks, owls or vultures. No tools made of bird bones were found.

The kinds of birds indicate much wetter conditions prevailed then, Ms. Matthiesen said. The land is now arid.

She is hoping the Olduvai birds will shed some light on the history of bird migration. Most scientists believe current migration routes were established after the end of the Ice Age, 10,000 to 20,000 years ago.

But nearly 2 million years ago, Australopithecus was eating some birds that still migrate between Africa and Europe...

Finding fossils of baby birds of species that now breed in Europe but winter in Africa would support the theory that the wintering ground of migratory birds is their ancestral home.

--The Arizona Republic
Konecnys, Prescott, AZ

The Lloyd Gunthers will be working this summer on a dig for Brigham Young University made possible through a grant from the National Science Foundation.

Congratulations! May you find many spectacular treasures from ancient seas!!

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FOSSIL TYPES

N. Gary Lane
Geology Department
Indiana University
Bloomington, IN 47405

One of the more confusing aspects of paleontology concerns types. These are the basis for the name of a specific category--a genus or a species. The type of a genus is very different from the type of a species. The type of a species is a specimen--something that you can hold, touch, take a picture of, study under the microscope--and therefore is a solid object.

The type of a genus, however, is not a specimen but a species. Thus the type is a group of supposedly interbreeding individuals or populations and is not a solid object but rather a collection of such objects that are judged to be members of the same species. Clearly there might be room here for some differences of opinion.

The primary type for a species is the holotype. This specimen is the "name-bearer". A new species name is attached to the specimen designated as the holotype by the author. That name cannot be separated from the specimen later, unless the specimen is irretrievably lost or destroyed. Thus, the type for a new species, say Holopus castrans n. spec, might be Field Museum holotype specimen No. 13487.

For a new Genus, however, there must be a type species, typically selected by the author of the new genus. The Treatise on Invertebrate Paleontology gives the type species of all genera listed in those volumes. Of course, the type species also must have a holotype that serves as its type. Thus, a new genus of trilobite, for instance, might be named Heteraspis n. gen. The author of this will designate a type species which might be a previously named species, such as Asteraspis acutis Huckleby 1924. That species, named by Huckleby in 1924 thus becomes the type species of Heteraspis a new genus--because the author of that new genus says it is. Alternatively, the author might decide that the

type of the new genus is a new species which he names Heteraspis oces n. sp.

The conservation of type specimens is one of the most important functions of museum and university collections. Loss of such types can cause chaos in the names of species and genera. It is for this reason that the types of any new species must be placed in a repository where there will be on-going attention to preservation of specimens.

In addition to the holotype there are other kinds of type specimens. Paratypes are specimens in addition to the holotype that are selected by the original author to serve as a standard for a new species. Many older authors failed to designate a particular specimen as type but rather had a type lot of specimens, sometimes called co-types or syntypes. A later author may select one of these as the primary type and this specimen then becomes a lectotype. Finally, any specimen of a species collected from the same locality as the holotype is a topotype. These can be useful if type material is lost or destroyed and to study variation in the species population.

Types are complicated. The first thing to get clear is the sharp distinction between the type of a species and the type of a genus.

THE NATIONAL COLLECTION OF FOSSILS -- Frederick J. Collier, Collections Manager
Department of Paleobiology
National Museum of Natural History
Washington, DC

Casual visitors to the Mall, interested in Natural Science, have a great deal to occupy their time viewing exhibits during a usually short stay in Washington. There is no clue in the exhibits to the huge resource of specimens to be found in the remainder of the Museum of Natural History and a few related outbuildings, Exhibition is only one of the four responsibilities of a large Museum--the others are Education, Research and Collections Management. All are embodied in the efforts of the more than 500 staff members and additional tenant researchers in the

THE PROFESSIONAL'S CORNER, COLLIER

National Museum. A few people are responsible only for exhibition; the rest are involved with the other 99.99% of the specimens in the collections.

The fossil collections number about 40 million specimens. There is no way to get an accurate count. The dinosaurs, petrified logs, mastadons and even brachiopods can be counted with ease, if necessary, but the micro-fossils bog down the most ardent compiler of statistics. All kinds of fossils are represented in the massive collections; vertebrates, plants, invertebrates, microfossils, trace fossils and even pseudofossils. To consider the collections and not fall into a jumble of superlatives is difficult. The biggest, best, most, largest, unique and outstanding are just a few that are used time and again. There is no other Museum in the Western Hemisphere and probably only one other in the world that matches the overall complexity and completeness of representation of the fossil record, the British Museum (NH).

A staff of about fifty people, including aides, clerical workers, technicians and researchers work to meet their responsibilities of caring for the collections, responding to requests for information from the public and the scientific community, and carrying on a broad array of research programs. Eighteen research curators make up the core staff for science and their assistants divide their time by helping the Collections Management staff care for the collections. This may seem a large number but twice the available effort could easily be absorbed in utilizing the potential of the collections, bettering its weakness and researching the development and distribution of life throughout geologic time.

Perhaps the key word in describing the National Collection is diversity. One must consider that there probably has been almost the same abundance of animal and plant life on earth at any time in the past 300 million years and another 200-300 million years can be added in considering well known marine floras and faunas. Only a tiny fraction of life from any very short span of time is preserved and much time is not represented by fossils at all. This still leaves fossil forms in immense numbers available to the collector. Paleobiology, remember, is a microcosm of the many disciplines involved in Biological research and collections. There are strengths and weaknesses in the National Collections. There

could be more specimen diversity in many areas of the collection but broadly speaking, the only collections which at all compare are highly specialized and narrow in scope, resulting in what we consider a collection segment. The strengths outweigh the weaknesses. Constituent collections such as the Cushman Collection of Foraminifera, the brachiopods (massed largely through the efforts of Dr. G. A. Cooper); the Springer Echinoderms, the marine mammals, the bryozoa collection and many others are unparalleled.

Paleobiology is a historical science. The specimens represent the only tangible evidence of this history and all theory, all interpretations of fossil life eventually return to the specimens. A measure of the importance of a collection is the number of type and voucher specimens present. These are the particular specimens used by a scholar in research and are the basis for conclusions whether they are used in systematic studies concerning the recognition of new forms or synthesis of distribution of forms through time and in geographic distribution. The facts of the studies are the specimens and their data. The staff is in turn particularly concerned with these irreplaceable representatives of study, all 300,000 and more of them. The care, use and control of this part of the collection is a primary charge. Many scientists have sent and continue to send specimens to the National Museum as the most stable repository in the United States. The type collections are growing at an average rate exceeding 5,000 specimens per year.

A very important part of collection care has nothing to do with the actual specimens but deals with the specimen data. The specimen that is collected with ignorance of the geologic data and failure to record the geographic data is almost always a scientifically useless curio. Those of you that may collect in such a manner, are destroying a natural resource. If biologists worry about endangered species, then paleontologists dealing with nothing but extinct species must of necessity be scornful of those that destroy any second generation endangered species. It is unfortunate that the beauty and intrigue of fossils has initiated a sometimes destructive market. The intelligent amateur collector remains, however, the source of many important finds and valued helper to the scientist. The National Collection, at present, has a legacy of tangled records accumulated over the years, but never destroyed, which are slowly being stored along with the

straight-forward data accumulated from modern collecting and research in a fashion which can be manipulated by computers for easier access.

The daily activities in the department of Paleobiology are routine to the staff and most easily compared with a large university serving a tiny student body. The collections are best compared to a rare book library. The research curator is a world recognized specialist in his field and the flow of scholars and graduate students is continual. A lively program of lectures and daily interaction in scholarly activities is the rule. The aisles of specimen cases are almost never empty. Someone is usually about and working with specimens from very early in the morning to late in the evening, 7 days a week. The questions from the public are many and met as rapidly as possible. They are telephoned in at the rate of dozens a day and specimens flow in and out for identification at the rate of 1,000's per year. There are no quiet corners for long. The eyeshades have disappeared and the most sophisticated optical and electronic analytical equipment is available and in use. It is one place in the world that all serious students of paleontology must visit or contact--not as a shrine of some sort--but simply because it is a primary source of information for all of them. Loans of material to qualified researchers around the world are made routinely. Many thousands of specimens are sent from the Museum yearly in support of study. More than 900 separate transactions concerning loans are active at this writing. Obviously the time consumed in recording, wrapping and unwrapping is formidable. The search to fill requests is never ending.

A description of the ongoing activity concerning a single collection such as the Burgess Shale, the saurians, the Tertiary molluscs or almost any of the 150 or so discreet segments of the collection could act as an example of Collection Management activities. Trilobites are of general interest and that collection will serve well while dealing with a familiar group of fossils. The collection is stored in standard cases built especially for the Museum. The trilobites fill about 80 of these approximately 2.5' X 3' X 3" cases and are segregated into six collection elements. The type collection of more than 5,000 specimens is separated and arranged alphabetically by generic and specific name. Each specimen isolated in the scientific literature is separately labeled with name, catalog number, geographic, geologic and bibliographic information. The agnostid trilobites are held as a separate collection as are

Olenellids; the fourth part is Cambrian forms alphabetically arranged by name and the fifth part a similar arrangement of post-Cambrian forms. The final lot is a section of materials to be studied, identified and placed in one of the other sections as time permits. There is at present no research curator specializing in trilobites so it is a relatively inactive collection. It is still used, added to, or in some way handled very frequently. Within the last 3 months there have been several visitors studying the material for a number of successive days; more than a dozen loans have been sent to Canada, Europe and destinations in the United States and others returned effecting 100's of specimens and much paper work for control; some specimens have been added. Casts and molds have been made and sent to China and other countries where our regulations prohibit sending type specimens. Photographs have been requested and provided, identification for amateurs confirmed by comparative study and a new exhibit being worked up has made use of a number of specimens. This is a quiet segment of the collection.

To add to the activities, there is an inventory of collections currently being carried out which adds a dozen workers to the general rush of activities. Throw in a few visits from television crews from time to time; spurts of activity with some new scientific argument or discovery bringing an especially large number of inquiries and it adds up to a press of activity which leaves much undone. The single addition that would be most helpful to the collections is an addition of dedicated, knowledgeable workers. The most needed items are well documented specimens.

The staff at the National Museum is acutely aware of the growing interest in fossils as collectables and also of the growing expertise in collectors. Such activities are applauded and encouraged but only when carried out in the correct manner. There is a general feeling that the few selfish entrepreneurs that are wantonly destroying collecting localities without using proper techniques or recording data are a minority that are doing damage far beyond their presence in the ranks of collectors. The help that is given to science by the informed collector far outweighs the damage at this time. But already there are increasing signs of illicit activities which worry the professional scholar working with fossils.

The National Collections will grow in the future. It is inevitable that new localities will be found and that new specimens will be studied.

THE PROFESSIONAL'S CORNER--THE NATIONAL COLLECTION OF FOSSILS, Collier, concluded

It is also inevitable that specimens will be sent to the National Museum because all collectors realize that it is not a private collection but a heritage of objects held in trust for science and the American public. You can help the Museum grow by donating specimens and those qualified have open access to any information held by the Museum. You can take pride in what has been accumulated as a National Collection and should

avail yourselves of its contained knowledge. The only restrictions placed on those who visit is that they have specific questions to ask and are knowledgeable in the subject of their inquiry. Lesser inquiries are welcome and should be initiated by mail. The National Museum is essentially your Museum, the National Collections, your collection.

(Editor's note--The above article is due to the contact of MAPS member Philip Marcus. Our thanks.)

AFTER MAN - A ZOOLOGY OF THE FUTURE -- Dougal D. Dixon, St. Martin's Press, NY 1981
124 pp., illustrated \$14.95

Taxonomy, that branch of science concerned with naming and ordering this world's plant and animal diversity, has had a bad press. While providing a structure and vocabulary essential to biologic research, modern taxonomic monographs can appear legalistic, dissipated, even abiologic. Having distilled away all that was vibrant and alive in the original organisms, they seem to treat endlessly with questions of priority, synonymy, and dates of publication; a graves registration for the biological sciences. Such appearances are superficial and misleading, and yet, taxonomists occasionally dream of an earlier time in the history of their craft. A time when continents were open to exploration, taxonomy was done in the field, and the naming of species fell to their discoverers. These dreams crystallize occasionally in what may be described as a minor art form of the biologic peripheries: the mischievous monograph.

Papers show up from time to time at graduate seminars, reprints from an obscure journal, authorship not easily attributed. They purport to describe in classic style with line drawing and Latin name the flora and fauna of some remote region recently penetrated. Serious in style, orthodox in format, they closely resemble the genuine article. Only on careful inspection does their playfulness come into focus. Professors may break into smiles, lesser luminaries roll in the aisles, as each footnote and cross reference reveals the obvious. The whole thing is a fabrication. The photos are faked. The organisms, described in such detail, don't exist.

This art form, like any other, has its masterworks and to this short list must now be added After Man. A beautifully illustrated volume

with sketches and paintings of hundreds of unusual, previously unknown, plants and animals, this book breaks with two traditions, however. First, the author, Mr. Dougal Dixon, is clearly identified and appears to be a real person. Second, he has eschewed the darkest of Africa and the most remote of Pacific isles for a newer playground: The Future. After Man is a naturalist's sketchbook of our planet 50 million years from today. Man is long extinct. And has taken with him whole lineages of today's flora and fauna. In Dixon's view the future belongs to the pests. Those organisms which survived in spite of man's presence, diversify in his absence. Ecologic niches presently filled by man's domestic herds are occupied, in future, by fleet-footed rabbits and giant moles, pursued, in their turn, by predatory rodents and ignored by immense horned beasts of sundry affinities. The author has taken pains to create a complete world picture. The continents have drifted. Changing weather patterns and ecosystems keep the beat as insect-pollinated flowers, and insect-eating birds march synchronously forward. Vistas open everywhere. Mountaintops and deserts, jungles and icecaps are visited, if only for a moment, leaving the reader to ponder the wonderful beasts we have happened upon and to wonder about those imponderable creatures which may live over the next hill.

The colored illustrations are masterful, reminiscent of 19th century ornithologic tomes. Considering the book's price, under \$15, they are almost unbelievable.

One can, I suppose, still find fault. The book's 30 pages comprise an abbreviated text of genetics, ecology, and evolutionary theory. The author takes over great care to prevent one from missing the point of his jokes. And, while this section is generally up-to-date, it seriously oversimplifies much of modern biology.

It is, of course, precisely this oversimplification which endows humble biology with such immense predictive powers. Another point of concern, if only to the professional taxonomist, is Dixon's coining of Latin binomials, the two-part species names first codified by Linneaus. A trivial point, perhaps, for most amateurs and biologists alike not daily involved in taxonomy, but this volume shall cause considerable troubles for the few who are. Some of the rodents and rabbits depicted are given names already occupied. Other names are new to the literature, but their validity in a bestiary of the future is questionable.

This offering, then, must be commended for its illustrations, recommended for its readable text, lauded for its audacity, and reprimanded, if ever so quietly, for its mischief. In this case the reprimand, and the fifteen dollars, seem a small price to pay.

(Editor's note--Thanks to John Chiment, Paleontological Research Institution, Ithaca, NY, for this article. Dr. Chiment is still looking for charophytes--someone out there must know where they are. HELP! He needs you!)

FINDING CRETACEOUS COMATULID CRINOIDS IN CAVES

William T. Watkins, San Antonio, TX 78223

Boerne is an old German town about 30 miles Northwest of San Antonio. It is situated on the thick Lower Cretaceous Glen Rose Limestone formation. On a Friday evening in June, 1968, I received a phone call from one Pat Wortheim. He was passing thru San Antonio from College going home to Boerne for the weekend. He said he was referred to me as a "specialist" in crinoids. He claimed he had found crinoids in a cave near Boerne. While I doubted his story since no crinoids, other than near microscopic, had ever been recorded from Texas Cretaceous age rocks I was intrigued into knowing just what he had found. We made a date for the next morning. He said to wear old clothes. I didn't ask why but I thought it peculiar. I'd been thru Carlsbad Caverns twice and no one said what to wear except jackets because of the lower temperature. With hammer and chizzels I drove over to Boerne the next morning. We met at his father's bakery in a large stone building on Main Street. Pat was 20, an A & M student, also he was still the leader of a caving club in his school and kept the club's caving equipment in a locked room at the bakery. I was 65, didn't look it or feel it, worked at special weapons, Kelly Air Force Base, so all our caving was done on week ends. We loaded what we needed into my car and took off. The cave is on Mr. Bruno Klar's ranch, actually

in the next county East--Comal County. His house is a hundred year old thick-walled Indian fortress of a house. We drove by to let him know we were going underground. Mr. Klar has been most cooperative thru it all. He wanted to talk but we finally said goodbye and drove nearest the cave site, parked and walked thru the scrub trees and across the rocks hunting for the entrance a distance from the road. Pat finally found it. It's a very small entrance, just a hole in the bottom of a basin in the rock. Pat said when they first found it there was no opening at all, but due to the fact that rain would not collect in the basin but drained away as fast as it came down, they knew a cave was there. They went to work to clean it out. It was a tremendous job for those schoolkids. A tree grew close to the entrance. Pat fastened a 30 ft. wire ladder to the tree and dropped it down the hole and preceded me. There was a straight drop down 15 ft. a little larger than a man's body and then the channel sloped down another 15 ft. at a 55° angle. We had to let ourselves down this with the wire ladder lying on our backs, feet first. Here a narrow horizontal room opened out, with a cross channel below that generally carried water. The room was in a marl in the lower Glen Rose. It was in this room, Pat said, that the crinoids were found. He showed me one that, while I immediately identified it as a crinoid, was not like any crinoid I had seen before. As it developed I was looking at the first Comatulid crinoid ever recorded from N. America. (See an excellent living 20 armed Comatulid in National Geographic, January, 71, p. 112.)

These crinoids are quite different to Carboniferous crinoids. Five massive arms extend out and upwards. There seemed to be no cup or calix, altho careful examination reveals glimpses of the radials between the bases of the arms. No stem or column but immediately below the arms is a centrodorsal pitted with sockets for reception of many cirri. In some the cirri are still in place. These were free-swimming or floating crinoids, could attach themselves by their cirri to an object on the substrate until disturbed and then move on to another place. The first crinoid that Pat had shown me was the most complete specimen, about an inch and a half long to where the arms are broken off. As we came out of the cave that first trip I understood and appreciated Pat's suggestion to wear "old clothes". We were both muddy from head to foot from sliding down that incline and our clothes were ripped in places. The cave was small and after a couple of visits we had removed all traces of crinoids from Crinoid Cave. We went looking for surface exposures or for caves in the immediate vicinity with no luck.

In the meantime I spent every minute I could cleaning the specimens I had. I wrote to Dr. N. Gary Lane, then in Los Angeles, for the name of someone qualified to describe a Cretaceous crinoid. He wrote back suggesting Dr. Raymond Peck, U. of MO., stating that his job had recently been changed from administrative and that he should now have time to devote to Cretaceous crinoids again. I remembered Peck's Cretaceous crinoids of 1943. A whole group of curious little pelagic crinoids from the various formations of the Fredericksburg and Washita groups of the Lower Cretaceous. They were supposed to have floated on the surface of the water upside down with their arms dangling. I wrote to Dr. Peck and at his request sent him some specimens. He wrote back that Comatulids had been found and described in Europe but that these were the most complete and best found anywhere and the first ever recorded from N. America. Also that if it was OK with me he would like to describe them in the Journal of Paleontology and would I care to join him as junior author? Of course I would!

In September, 68, Pat told me he and a friend had found a crinoid in another cave in the same vicinity. Salamander Cave has been entered by many people. It is 1/5 mile from Crinoid Cave and only about 65 yds. from the road, larger and easier to get into. This is in the Balcones Fault zone and the cave is situated on an old fault so that a long room 30 ft. down has different strata on each side wall. Pat showed me the crinoid low down on one wall in hard limestone. It's still there. He said that was all they could find. So with the flashlight I took a look. The far wall had a curious 2 to 3 inch horizontal crack or cavity in it. My light showed crinoids in some abundance in it. It proved to be an old bed of red clay with the clay eroded out. What a place to find them in and how to get to them. Pat had an idea. He would blast the lower shoulder away. We got folded cartons to pad the horizontal opening, drilled holes for the dynamite below, set the wired charge, climbed out, touched the wires and heard the boom. We returned to the cave the following Saturday. The charge had been a little on the heavy side but it got the job done. The crinoids were not so good, cracked and eroded. Two more blastings got us to where the red clay was. This yielded good crinoids.

Dr. Peck had to attend an AAPG meeting in Dallas April 13-16, 1969, and took the opportunity to visit us on April 11. He had lived in San Antonio from 1942 to 1945. He and Mrs. Peck came by late in the afternoon and stayed

about an hour. I asked him if he didn't want to visit the caves but he said he simply did not have the time.

Dr. Peck thought that finding Comatulids was worthy of reporting in Science Magazine. He therefore worked up a short report including illustrations and sent it into them on January 5, 1970. On February 23 he wrote that they had turned down his report as "not of sufficient importance and interest to merit publication in Science." He also wrote that there would be a year's delay in getting out the manuscript and submitting it to the Journal of Paleontology. That meant instead of Spring, 1970, it would be 1971. His other priorities, his work on chapters on Charophytes and Ro-veacrinidae for the Treatise on Invertebrate Paleontology just had to come first. His summers were spent now building his retirement home on Elk River near Steamboat Springs, CO. As it developed the delay was for the better. Dr. Peck saw some detached arm brachials lying on something I had sent him and asked about them. They were short brachials, narrow triangular and sharply keeled dorsally, quite different to the broad round proximal arm brachials of our specimen. I wrote that they were the distal brachials of the same specimens and if all went well I'd send him some long arms to prove it.

There was a specimen in the cave that I wanted very badly. Every time I went into the cave I would look at it but didn't have the nerve to do what I knew had to be done to get it out. It was just above the clay bed lying horizontally with arms stretched out in the limestone. I could lie in the area we had blasted out below it and it was 4 inches from my nose. A young fellow, Ed Arredondo, came by my desk at Kelly AFB one day with an ammonite he'd found near Sonora, in West Texas, where he grew up and his folks still lived, and asked me to tell him about it. It turned out that he'd been a demolition expert during the Korean War, so with some vague idea that we might have to blast the specimen out I took him out to the cave in December, 1970. He looked things over, lay down under the specimen and asked me to hand him the hammer and chisel and started cutting a trench around it. After half an hour I relieved him at it. And so it went that Saturday and two more Saturdays. The last Saturday I was working on it when it fell onto my chest. I'm afraid that that specimen would still be in the cave if it hadn't been for Ed. I took it to a friend who sawed the excess rock off and then I cleaned it as best I could and sent it to Dr. Peck on January 16, 1971. A little

DENNIS W. BORDICK
1905 Winnetka,
Northfield, IL 60093
312-446-7249

JERE CAHORET
6447 Clayton Rd 2E
Clayton, MO 63117
314-727-5932

SAMUEL J. CIURCA, JR.
48 Saranac St.
Rochester, NY 14621
716-342-3447

JOHN & BILLY CLARK
6660 10th Ave. Ter. So.
St. Petersburg, FL 33707
813-343-1305

IRVING R. DOBKIN
306 Maple Ave.
Highland Park, IL 60035
312-432-7350

RICHARD DAVID HAMELL
E. Henrietta Rd. (Monroe Comm. College)
Rochester, NY 14623
716-385-4542 - work 716-424-5200 EXT 4224

CLIVE W. HAYES
2211 Hemlock Ct.
Ann Arbor, Mich. 48104
313-973-1159

CHARLES J. & VIOLET E. HERTWECK
637 Sherican Drive
Venice, FL 33595
1-813-485-7426

BRUCE HORN
409 E. Pennsylvania Ave.
Peoria, IL 61603
309-682-1608

JURGEN HENZEL
Ententeich 4 D-3100
Celle, W. Germany

GARY OVISSNER
103 Jamestown Ave., Williamsburg, Manor
Valparaiso, IN 46383

JOHN STADE
210 Wooster Dr.
Ferguson, Mo 63135

Self employed. Will trade. Interested in
crinoids.

Cartographer. Will trade. Interested in
echinoderms.

Geologist (stratigraphy & Paleontology)
ested in Eurypterids, Fossil scorpions &
iated faunas. Wants to meet and exchange infor-
mation on fossils, etc.

Pipefitter/ student. Will trade. Interested in
trilobites & sharks. Have for trade marine &
terrestrial fossils of Florida (marine - teeth
of sharks, dugong, porpoise, etc. - terrestrial
teeth of horse, rhino., elephant, etc.

Entomologist. Interested in ammonites, dinosaurs

Invertebrate paleontologist. Will trade. Major
area of interest trilobites, crinoids, & other
arthropods & echinoderms. Have for trade N. & S.
specimens all kinds, all periods (Camb-Devonian)

Maintenance at Townhouse complex & aspiring art-
ist. Interested in brachiopods, Index fossils,
crinoids, blastoids, echinoderms. Later will
trade enrolled phacops, silica shale fossils,
Bowmockeri brachs, Greenops, Ord. Collingwood, Ont.
miscellaneous.

Biologist. Wants to learn more about fossils and
meet other fossil enthusiasts.

Will trade European fossils. Interested only in
excellent fossils. He just loves fossils.

Chemical technician. Interested in trilobites &
Indiana fossils.

Chemist. Will trade. Is a member of Eastern Mo
Paleo. Society

RUSSELL WOODS
214 N. Munsie St.
Cumberland, IN 46229
317-894-4069

Supervisor Will trade Silurian fossils & Miss. fossils-blastoids, crinoids (usually cups), cystoids (occasionally) Interested in crinoids, cystoids, blastoids & primitive sharks & shark like fishes.

MARC ZAKARIN
213 -51 38 Ave.
Rayside, NY 11361
212-631-5057

Promotion. Interested in minerals and all fossil Will trade miscellaneous.

T. GARTH P. ZIMBRA
902 Hillview Avenue
West Chicago, IL 60185
Work 312-420-4585

Chemical technician. Will trade when able, novice in paleontology. My present main interest is in non-ferrous mineral deposits. A knowledge of paleontology would be a useful adjunct, as well as for its own right.

CRINOID IN CAVES, William T. Watkins, Concluded

A little over two months later on March 22, 1971, he sent me the first draft of the paper with one plate of illustrations including the long-armed one (No. 22) that made our paper complete. It went to the editors in May, 1971, and was published under the title of Comatulids from the Lower Cretaceous of Texas by Raymond E. Peck and W. T. Watkins in the Journal of Paleontology, vol. 46, no. 3, May, 1972.

In August, 1974, we received a letter from Dr. H. Weinberg Rasmussen, Copenhagen, Denmark, author of "A Monograph on the retaceous Crinoidea" 1961 that the smaller of the two species we had described, Semiometra minuta was a junior homonym of Semiometra minuta Gislen, 1925, and would need a new name. The name was changed to Semiometra klari Peck and Watkins in the March, 1975, number of the Journal, vol. 49, no. 2.

TRILOBITE RECOVERED FROM POP CAN -- Des Moines Register 8 April, 1982

Lincoln, Neb. (AP) -- Prehistoric fossils are usually found in strange places, granted, but in an empty pop can inside an empty snack-food bag?

That's just where a 400-million-year-old trilobite was found Tuesday. The fossilized prehistoric critter valued at about \$500, had been missing from the University of Nebraska-Lincoln museum since February.

Thanks to Cheryl DeRosear

(Paul Harvey liked this one, too. So, trilobites are good enough for syndicated news, well, Doug's been saying that!)

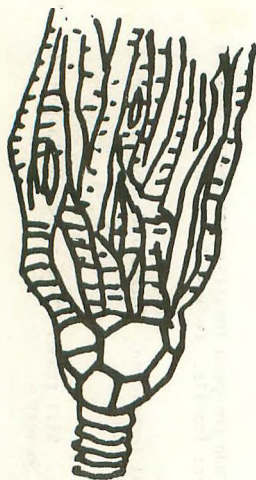
The Mid-America Paleontology Society (MAPS) was formed to promote popular interest in the subject of paleontology, to encourage the proper collecting, study, preparation, and display of fossil material; and to assist other individuals, groups, and institutions interested in the various aspects of paleontology.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

MAPS is affiliated with the Midwest Federation of Mineralogical and Geological Societies, and with the American Federation of Mineralogical Societies. Membership in MAPS is open to anyone, anywhere who is sincerely interested in fossils and the aims of the Society.

Family membership \$7.00; individual membership \$7.00; junior membership \$5.00 (between ages 8 and 16).

MAPS meetings are held on the 1st Saturday of each month (2nd Saturday if inclement weather) October through May at 2p.m. in the Science Building, Augustana College, Rock Island, Illinois.

President: Cheryl DeRosear, Box 125, Donnellson, IA 52625
1st Vice President: Don Good, 410 N.W. 3rd Street, Aledo, IL 61231
2nd Vice President: Doug Johnson, Box 184, Donnellson, IA 52625
Secretary: Peggy Wallace, 590 So. Grandview, Dubuque, IA 52001
Treasurer: Alberta Cray, 1125 J Avenue, NW, Cedar Rapids, IA 52405



CYATHOCRINITES

MID-AMERICA PALEONTOLOGY SOCIETY

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

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