

## CLUB EVENTS

- Oct. 23** General Meeting...Halloween Party, Antelope Park Shelter, 7-9PM  
**Nov. 5** Board Mtg Kinko's 7-8 PM  
 20 General Meeting & Election of Officers, Antelope Park Shelter-7PM  
**Dec. 7** Christmas Party/ Meeting, Antelope Park Shelter, 5-9 PM

### Recap of September Meeting

The September program was entitled "Agates" and was presented by Roger Pabian. This presentation was excellent; very informative and with excellent slides. Thank you, Roger for another wonderful program.

The meeting itself was interesting as well. Members reported on their experiences during the summer. Sounds like there was a lot of hunting going on!



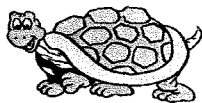
### October Meeting



**Halloween Party:** Bring your favorite goodies for the annual dessert supper. Beverages will be provided by the club. Time for all you ghouls to dress up and come party in your favorite gem/rock/mineral related costume. (Costumes optional but I hope that I will not be the only one in costume for the **third** year in a row!...EDITOR)  
**Program:** Fossil Identification. Roger Pabian will present a multiple choice quiz style program, like he did with the rough gems last year. There will be 20 fossil items and clues for identification, with one tie breaker. The person who identifies the most fossils will receive a year's free membership to LGMC. **Mark your calendar for October 23!** This was so much fun last year, you won't want to miss it!

**Silent Auction:** There will be a silent auction during the meeting. **Remember** to please bring hobby-related items to make the auction a success! Earnings from the auction will go to the Lapidary and Equipment Fund.

**Door Prizes:** Provided by Susy McMahan



## PRESIDENT'S MESSAGE

Greetings to all Rockhounds,

Are you ready for the October meeting? Wear that rock-related costume (trick or treat!) and we'll get together for a rockin' good time. Don't forget the silent auction. Come prepared to place your bid!

See you Thursday, October 23rd at 7:00pm at the Antelope Park shelterhouse, 32nd and A St!!!! Hallo-wee-ee-eeen the witch is riding high! Have you see-ee-eeen her shadow in the sky?

Susy

### IMPORTANT BY LAWS CHANGE!

A motion has been made and approved to bring to the General Membership a **BY LAWS** change before our election of officers and board members for 2004. Motion to rescind or reverse the By Laws change in Article II, Section I, limiting the number of elected Board Members to two, which was approved in September, 2001, thus we would be returning the number to four to be elected.

We feel this would give us better representation in planning and carrying out the activities of the club.

### Nominating Committee Report

Jim Atkins, Committee Chairman, held the meeting on Monday, September 8th, with all members present. (Amy Dexter-Guy sent Dan in her place.)

They present this slate of Officers and Board Members to lead and serve us in 2004:

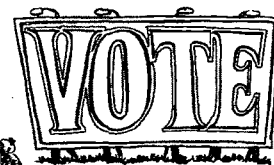
President- James Marburger  
 1st Vice President- Pat Akins, Jr.  
 2nd Vice President- Roger Pabian  
 Secretary- Sharon Margburger  
 Treasurer- Vera Lyman

Board Members: Jim Atkins and David Heffelbower

Nominated from the floor in September:

Board Members: Judy Reilly and John Harrison

Election will be at the meeting Thursday, November 20 at Antelope Park Shelter. Please be there to nominate anyone of your choice and **VOTE!**





LINCOLN GEM & MINERAL CLUB, INC. - BOARD OF DIRECTORS - Sep. 3, 2003  
7:00 P.M. @ Kinkos, 48th & Vine, Conference Rm.

The following cards and Memorials were sent during the summer months.

- 6-18 Sympathy - Memorial of \$ 100 to family of Irl Everett;  
Founder of the Lincoln Gem & Mineral Club.
- 6-20 Sympathy - Memorial of \$ 25 to Bill & Betty White on the  
death of their son (members of LGMC)
- 6-23 Sympathy - to Francis Belohlavy on the death of his mother  
(member of LGMC)
- 6-26 Congratulations! - to Rober Pabian on his retirement.
- 7-3 Sympathy - Memorial of \$ 25 to family of O.D. Spencer  
(member of LGMC)
- 8-20 Congratulations - to Dan & Amy Dexter-Guy on the birth of a  
son, Gavin.
- 9-3 Get Well - to Walter Erbach (a long-time acquaintance of  
many LGMC members.)
- 6-30 MWF Steering Committee - John Harrison, Chairman  
7pm Met at Eisley Branch Library to discuss materials to present  
at MWF Show (Aug) in Minnesota. Displays for Show and bid  
for 2008 MWF Show in Lincoln. Phyllis Parks & Linda Parks-  
Lundgren serving as our delegates.

President called the Meeting to order. Six Board members and 4 guests present.

Secretary and Treasurer's reports approved with motion by Jim Marburger. 2nd by Jim Atkins. Carried

Bills presented by John Harrison (42.75) and Roger Pabian (37.00) Unanimous approval for payment.

MWF Delegate Report: Written report in Oct. P & S.

Phyllis reported an excellent Show, excellent Nebraska case and Fossil case. Our bid for 2008 MWF Show met with unanimous approval with motion by Neil Snapp and 2nd by Bill Cook.

Marketing/Publicity: Younkers requested our participation in coupon sales. Discussion. Motion by Vera Lyman that we not participate due to our "tax status". 2nd by Jim Atkins. Carried. Also may demonstrate on Senior Day. Possible promotion for our Show. Motion by Dave Heffelbower, 2nd by Jim Marburger that we get more information and bring to next Board Meeting. Carried.

SHOW: Chairman for 2004 - Roger Pabian

Presented Show Budget. Motion to accept by Jim Marburger, 2nd by Dave Heffelbower. Carried. Roger will request State Show for 2004, and Steering Chair, John Harrison will request State Show for 2008-MWF Show. John Harrison has offered to chair 2005 Show for us.

PROPERTY- Storage Trailer is purchased. Will be on display at the General Meeting, 9/25.

NOMINATING COMMITTEE: Present their slate of officers for 2004 at the General Meeting.

DELEGATES: State Meeting at Omaha Show = Oct 4-5.

Dave Heffelbower, Roger Pabian, Judy Reilly, Susan McMahan.

Memorial Day Field trip was attended by 4 members and Labor Day trip by 3 members.

General Meeting - Sep. 25. Board Meeting - Oct. 1 at Kinkos.

Respectfully submitted,

*Vera Lyman*  
Vera Lyman, Secretary

LINCOLN GEM & MINERAL CLUB, INC. - GENERAL MEETING - Sep. 25, 2003  
7:30 P.M. @ Antelope Park Shelter House

17 members (7 Board members) 1 Junior present.

Cookies furnished by Phyllis Parks. Thanks!

The Meeting was called to order by the President and opened with the Pledge of Allegiance.

Minutes as printed in the Pick & Shovel approved with motion by Jim Marburger, 2nd by Pat Akins. Motion carried.

Treasurer's report approved as printed with motion by Pat Akins, 2nd by Kay Jurgens. Carried.

Announcement of Memorials and cards sent during the summer months, as listed in the Board minutes.

OLD BUSINESS: Grinding Party in July was another success even though it was very hot & Humid that day. Pat Akins and Mark Renter went to Crawford over the Labor Day weekend.

New Business: Everyone again urged to write their government representatives regarding the Paleontological Resources Act - HR 2416

Storage Trailer: On display at the Meeting site. The Committee actually met in Arlington, TX !!! That's where they decided on the layout, etc. Long way from home guys - but you did a great job.

(Pat Akins, Chair; John Harrison; Roger Pabian; Jim Marburger) As soon as some storage arrangements are made in the trailer, they will pick up the properties from the storage site.

Roger & Mary Pittard have offered to store the trailer at their home. Motion by Phyllis Parks, 2nd by John Harrison to accept their offer. Motion carried.

NOMINATING COMMITTEE REPORT: Past Pres. Jim Atkins, Chair

The Committee met on Sep. 15 and presented the following slate:

|                              |                        |
|------------------------------|------------------------|
| Pres. - Jim Marburger        | Treas. - Vera Lyman    |
| 1st Vice - Pat Akins         | Directors - Jim Atkins |
| 2nd Vice - Roger Pabian      | - Dave Heffelbower     |
| Secretary - Sharon Marburger |                        |

Proposal by Phyllis Parks to have 4 Directors on the Board. Motion by Vera Lyman and 2nd by Sharon Marburger to rescind By-Laws regarding number of directors and go back to 4 Directors. Motion carried.

Motion by Phyllis, 2nd by Dave Heffelbower for Editor and 2005 Show Chair as members of Board. No vote. Phyllis changed to "nominated".

SHOW - 2004 - Roger Pabian, Chairman

Five Dealer contracts are back. Bill White is Dealer chairman, Phil & Patty Rose are handling promotions. He does need a Working Demonstrator Chairman. He will be having a Committee Meeting soon.

DELEGATE REPORT - MWF Show/Convention in MN - Phyllis Parks, Delegate:

We received approval to host 2008 MWF Show. A vote of appreciation to Pat Akins Jr & Sr for delivering our display cases to Show site.

The Meeting was very business-like. Voted to have State flags for each state in the MWF at future Shows. Full report in Pick & Shovel John reiterated that he was told the presentation by Phyllis and Linda was emaculate; an excellent presentation.

Our Thanks to Phyllis & Linda for representation of our Club.

Meeting adjourned. Roger presented us with an outstanding program on "Agates"! Thanks Roger.

Respectfully submitted,

*Vera Lyman*  
Vera Lyman, Secretary

LGMC Treasurer's Report for September

Pinnacle Checking Balance on August 31, 2003 \$ 1,629.94

September Receipts:

|                               |          |          |
|-------------------------------|----------|----------|
| Interest added from CDs       | 1,840.82 |          |
| Transfer from Money Market    | 1,000.00 |          |
| Six - 2004 Dealer fees (Show) | 2,550.00 |          |
| One time-1/3 page Ad - P&S    | 5.00     | 5,395.82 |

September Payments:

|                                    |          |          |
|------------------------------------|----------|----------|
| Kinkos - Board Mty 9/3             | 20.00    |          |
| John Harrison - Tow Handle/Trailer | 42.75    |          |
| Roger Pabian - Postage/2004 Show   | 37.00    |          |
| Office Depot - 500 Club Letterhead | 21.40    |          |
| Postmaster - 3 mo Postage P&S      | 111.00   |          |
| Judy Reilly - Sep P&S copy         | 41.13    |          |
| Bill's Trailer Sales, Kearney      | 4,025.00 |          |
| John Harrison - Trailer Padlock    | 9.08     |          |
| Suzy McMahan - Misc copies         | 6.74     | 4,314.10 |

Pinnacle Checking Balance on September 30, 2003 \$ 2,711.66

MWF Convention Delegate's Report, August 16, 2003

Congratulations to the Host Club, **Minnesota Mineral Club**, for another rewarding Show and MWF Convention.

The Delegates Meeting convened at 9:15 AM on Saturday with 18 clubs represented by delegates, several of the State Directors and most of the Officers and Permanent Committees present. Call to Order by President Kitty Starbuck, Invocation-Norm Hanschu, Pledge of Allegiance-John Washburn, 2<sup>nd</sup> Vice President, Welcome by Sandy Fuller-President Host Club. Introduction of Past Presidents, Honorary Members and Distinguished Guests by Kitty Starbuck. Rules of Order by Anne Cook, Parliamentarian., Minutes of Executive Committee Meeting on May 4, 2003 presented by Donna Moore, Secretary, and Treasurer's Report by Norm Hanschu.

Reports were made by many of the permanent committee chairs with great emphasis on the current bill HR2416 which needs to be defeated as it was in 1990 when it was known as the 'Baucus Bill. Several hundred stamped envelopes were available for the delegates to bring back to our clubs to send to our representatives in Washington. Delegates from each club were given several booklets and reports to take back to their clubs to assist in program planning, educational matters and a general sharing of information. LGMC's were given to our MWF Liaison Officer to be made available. (That briefcase came home very heavy.) Delegates were able to approve using some MWF Endowment Funds to purchase Flags of each state in the federation to be in the care of the Conventions Chair so that a 'Hall of States' may be set up at each years Convention and Show with displays such as our Nebraska Gemstones which was on display at the 2003 Show. We also approved splitting the 'Public Image Committee' into 2 separate funded committees- Publicity and Website, both of which are now going full tilt into 2004.

The enthusiasm with which each new challenge was met gave new meaning to the premise of working together as a group to keep encouraging 'Rockhounds' and keep our hobby alive and flourishing in the face of our many obstacles. Thank you Lincoln Gem & Mineral Club for permitting me to represent you at our Federation Meeting and to have the privilege of asking if we may host the MWF Show & Convention in the year 2008. (This request was also met with enthusiasm by the members present.)

Thanks to outgoing President Kitty Starbuck for an outstanding year and all of her monthly newsletter messages which would make a book of recommended reading for all club members, especially the October one. 'Captain' you outdid yourself.

Thanks to Sandy Fuller, new 2<sup>nd</sup> Vice President for 2004, Co-Chair of the 2003 Show and Convention in Cottage Grove for a fine (even though HOT) Show with great exhibits, dealers, programs, hospitality, well planned meeting sites and meals. Special Thanks for the thoughtful letter of appreciation for our club's displays and participation. Bill White had displays, Betty White had a case in competition and Roger Pabian presented a program on Agates. Pat Akins, Sr. had a dealer booth and transported out Nebraska 'Gems on Location' Case for display.

Everyone should start planning now to attend the 2004 MWF Show 'Dinos & More' at Hawkeye Downs, Cedar Rapids, Iowa next April 23 to 25. See you there I hope.

Phyllis N. Parks

### Nebraska Association of Earth Sciences Annual Meeting Delegate's Report

The annual meeting of NAOESCI was held October 4, 2003 at IPM at the Omaha/State Show. Four delegates from Lincoln, David Heffelbower, Roger Pabian, Susy McMahan and Judy Reilly, attended. The meeting was called to order by Ben Vrana, President. These are highlights:

There was discussion about the Gem Palette. At the last State meeting in March, 2002, the board approved an increase in cost of Gem Palette to \$5/ year/member for five issues of the newsletter. Since the newsletter was printed less than five times in the past year, the charge had reverted to \$3.50. Those present at the delegate's meeting this year approved the cost of the Gem Palette to be \$5.00/ year for four issues. The next issue will be in November, with quarterly issues following. Judy Reilly will continue as Gem Palette Editor and Susy McMahan will continue as Circulation Editor.

Ben Vrana mentioned that a new club has formed in Scotts Bluff. He mentioned that perhaps the incoming president will invite the members to join the State Association.

Lincoln Delagate, Roger Pabian, presented a bid for the State Show in Lincoln in 2004 and also 2008. The show in 2008 will also be the Midwest Federation Show and will be Lincoln Gem & Mineral Club's 50th Show. The bids were both approved.

There was discussion about the cost of State membership. The cost is handled differently by different clubs because some clubs get the State Insurance and some do not. Also, State membership is included in the individual club dues of some clubs. It was decided that the new Secretary/Treasurer will send a letter to each club in regards to membership dues for 2004. Deadline for the dues will be January 15, 2004.

The Slate of Officers for 2004 was presented and passed without opposition. The new NAOESCI officers are:

President-Pat Akins (Lincoln)

Vice President- Erma Pharaoh (Omaha)

Secretary/Treasurer- Susy McMahan (Lincoln)

Board Members (2 years) Wade Beins (Crawford), Judy Reilly & David Heffelbower (Lincoln), Ben Vrana (outgoing President, Schuyler), and (1 year) Roger Ridley (Grand Island)

We want to extend sincere thanks for outgoing President, Ben Vrana who served us well for the past two years. Ben organized the first NAOESCI sponsored inter-club field trip. He was very supprtive to members of all of the Nebraska clubs, offering advice and assistance when needed. He helped revive the Gem Palette, assisting the new editors in numerous ways. He will remain active in the Schuyler Club and will serve on the NAOESCI Board of Directors. Thank you Ben! Well done!

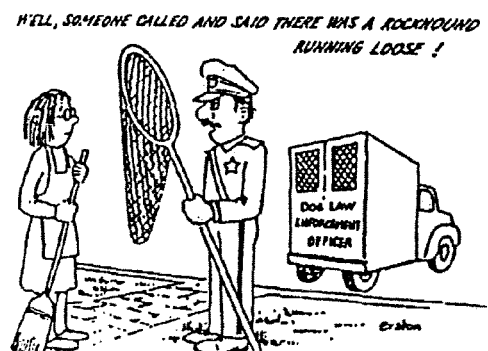
Submitted by Judy Reilly, Delegate

### Rockhounds in the Community

Roger Pabian, David Heffelbower and Susy McMahan demonstrated lapidary at Younkers Department Store as a part of the store's 'Senior Day' promotion on September 23. Younkers has asked LGMC to participate again at a future Senior Day prior to our show next March. This is great PR for our club and our show. Any member interested in demonstrating or displaying please let Susy know. The free coffee and donuts are great! And if you are over 55 you get a 15% discount on your purchases that day! Oh ... the perks of being a Rockhound!

Susy McMahan and Ben Vrana spent Saturday, October 12th at Midland College in Fremont, NE. teaching Girl Scouts from around the state about lapidary and paleontology. Over thirty girls and their troop leaders spent the day learning about rocks, gemstones, fossils and beads. The girls used the information to help them connect creativity, art and earth sciences to earn a badge. The owners of Main Street Beads in Fremont taught the girls to use recycled (and some new) beads to make jewelry. A good time was had by all!

Submitted by Susy McMahan



# FEDERATION NEWS

President's Message-MWF Newsletter, Oct., 2003

by Kitty Starbuck

You've heard it, I've heard it... many times... "**WHAT DOES THE FEDERATION DO FOR US?**" Well, let me tell you about some of the things it has done recently...

New Membership Kit...thanks to Alan Hukill  
 OP Revisions...More to come  
 Established a Publications Committee  
 Established a Website Committee  
 Website... up and running  
 Quiz Booklet "So You Think You Know All the Answers"  
 2003 AFMS Winning Articles Bulletin  
 2003 Program Planners Manual  
 Preliminary Show Manual...In the works  
 Pins for "Rockhound of the Year"...In process  
 New Programs for MWF Program Library  
 Monthly Newsletter

Now, let me ask you, "**WHAT HAVE YOU DONE FOR THE FEDERATION?**"

Every club was asked to have all their members send a letter in regards to HR2416, The Paleontological Resources Act. **Has your club done this?**

Each club was asked to send a delegate to the convention in Cottage Grove, MN. There are **144 clubs** in the MWF and only **18 clubs** sent a delegate. Four unexpected people (who had not pre-registered) came in, registered, and sat down. **If it hadn't been for those four people, we would not have had a quorum, and we COULD NOT HAVE HAD A MEETING.** Your attendance is important. It would not have been fair to the people that did come, to find out they couldn't have a meeting because you thought it wasn't necessary to send a delegate. Several items were discussed fully before any vote was taken. I read in newsletters that clubs think there is no reason to send a delegate because everything is all **CUT AND DRIED.** Where they got this information is a good question. If you do not attend, how do you know what takes place at these Council (Delegate) Meetings? State Directors and Delegates are expected to attend, to return to their club and report what happened at the meeting, and to act on anything that needs action.

Have you nominated someone in your club for "**Rockhound of the Year?**" Have you sent in a nominee for the **MWF Honoree Award Winner?** Have you paid your dues on time so you will be listed in the **MWF Directory?**

I keep hearing that "Our hobby is dying. We aren't getting any new people." If it is dying, it is because clubs are not putting forth the effort to come to the Conventions to see what can be done, and what is happening in the hobby. I think it is alive and well, mainly because of the dedication of the people that have made all the things listed earlier in this message happen, and because of the dedicated people like Dean Stone, who came to the meeting loaded down with boxes of handouts for all the attendees. **WERE YOU THERE FOR YOURS?**

In the years past, each State Director was encouraged to either bring or make arrangements to have a display at the Convention showing the rocks, etc., that could be found in their state. There was a state flag to be hung in front of the display. Over the years, these flags have become somewhat the "worst for wear". One of the decisions your delegates voted on was to purchase a flag for each state so that they all would be the same size, **WITH THE OPTION THAT IF CLUBS WANTED TO DONATE TO THE COST OF ONE OF THESE FLAGS THEY COULD.** The flags will be in the custody of the Show and Convention Chairman, who is Neil Snapp at the present time. Hopefully, we will once again see a "full house" of these flag cases, complete with a state flag, at upcoming conventions. If you wish to donate, please send your donation to Norm Hanschu. **HOW LONG HAS IT BEEN SINCE THERE WAS A DISPLAY FROM YOUR STATE?**

Once again, "**WHAT HAVE YOU DONE FOR THE FEDERATION?**" **LET ME KNOW!!!**

The time has come to "dock this ole ship" so the Federation can "take on a new crew". Your new Board of Directors are: Alan Hukill, President; John Washburn, 1st VP; Sandy Fuller, 2nd VP; Donna Moore, Secretary and Norm Hanschu, Treasurer. They, along with the members of the Executive Committee, will keep "her" on course. If you are interested in being a crew member on a specific committee, just contact the Chairman and let them know.

I wish to thank you for the opportunity, the pleasure and fun of being your "Captain" this past year, and hope you will give the new officers all the support and help you have given me. With that, there is a "Man Overboard!". NO, "Woman Overboard!"  
 (EDITED FOR SPACE)

## On Types, part 2, by Roger K. Pabian

There are several different kinds of type specimens besides the holotype specimen, that one on which a species, either extinct or extant, is based. There may be several additional specimens on which the scientist based the original species description. These are called **paratypes**. The paratypes are subordinate to the holotype in all cases. Sometimes, a holotype specimen can become lost or destroyed. A researcher may petition the International Commission on Zoological Nomenclature to elevate one of the paratypes to a **neotype** specimen. For fossil specimens, the paratype may or may not have been collected from the same stratigraphic horizon and geographic locality as the holotype.

Additional specimens of a properly described species that have been collected from the same locality as the holotype specimen may be designated as **topotypes**. Topotypes may provide a great deal of statistical data in studying a fossil species. What we can learn about a fossil species is greatly expanded when we have a large sample to study. A large sample can show the variability in a species as well as show the changes that took place during growth, an **ontogenetic** series.

Any non-holotype, -paratype, -topotype specimen that is recorded in the published literature becomes a **hypotype**. Hypotypes are from localities other than the one from which the holotype or paratypes were collected. A large sample of hypotypes can be of great value in conducting paleo-ecological or biostratigraphic research.

What happens if somebody names a new species and it turns out that the specific name is pre-occupied? The fossil crinoid *Cibolocrinus spinosus* Strimple provides a good example. This species was described by Strimple, but the name *spinosus* had already been given

to other examples of *Cibolocrinus*. The first use of the name has priority---Strimple had to change the specific name he proposed, and he settled on *Cibolocrinus spinula*.

The name *spinosus* can be used for species of another genus. It shows up quite a few times in the literature. A murky situation can arise when the same specific name is used in closely related genera. Let's suppose the name *spinosus* is used in Genus A and Genus X. Then, research shows that the two genera are synonymous. What if the species aren't synonymous. Suppose the former species is fat and has short spines and the latter is thin and has long spines. The first named has priority.

A bad situation can arise when an author uses for the first time a generic and specific name, either together or separately, but without any written description. A **nomen nudum** is created. Once a name is shown to be a nomen nudum, that name may never again be used in the literature to describe a species or genus, regardless of how well it may fit the material.

How does a scientist know which species or genera of an organism are synonyms. Publications that deal with the **taxonomy** or classification of fossils or other organisms should contain what is called a synonymy. An example of a synonymy for a crinoid follows:

Superfamily **ERISOCRINACEA** Wachsmuth and Springer, 1886

Family **CATACRINIDAE** Knapp, 1969

Genus **DELOCRINUS** Miller & Gurley, 1890

*Delocrinus brownvillensis* Strimple, 1949

(Continued on p. 7)

*Delocrinus brownvillensis* Strimple, 1949, p. 22, 23, pl. 4, figs. 1, 4; 1962, p. 109-110; Pabian & Strimple, 1973, p. 17-20, figs. 1, 2, table 1.

*Delocrinus vulgatus* Moore & Plummer, 1939 (partim), p. 286-288, pl. 18, figs. 1a-c, figs. 2, 2a-b; Pabian & Strimple 1973, p. 17-20, figs. 1a-c.

What the above synonymy shows is the original description, and that in 1973 Pabian and Strimple assigned and published the occurrence of *D. brownvillensis*, and considered their specimen(s) to be the same thing that Strimple described in 1949. Then, Pabian and Strimple considered some of the specimens that Moore and Plummer called *D. vulgatus* to belong to *D. brownvillensis*. The word partim implies that. The synonymy also shows that specimens that Pabian and Strimple had originally assigned to *D. vulgatus* were now being assigned to *D. brownvillensis*.

Some other worker may come along and publish a completely different synonymy for *D. brownvillensis*. The new worker may keep out synonymy intact, take some things out of it or add things to it, or may agree with us wholeheartedly. The synonymy shows what the current worker includes within the species as it is being re-described.

Of course, there are a lot more rules to taxonomy and types and synonymies, but the above should give you an idea of how they are used. Sometimes, a worker will designate a type locality for a species, that is, the locality from which the first examples of a species were described.

In their classic work on Pennsylvanian brachiopods, C.O. Dunbar and G. E. Condral recorded an outcrop north of Elk Creek, Nebraska as the type locality for the brachiopod *Linoproductus semireticulatus*. The type locality may be actually designated, or implied in the

materials studied sections of the research paper. If a new species is described and the material studied shows the legal description for the area from which the holotype was collected, that is an implied type locality.

Type localities, however, are much more widely used and referred to in the study of **stratigraphy**—correlating units of rocks from one area to another. It is ultimately the stratigraphy of rock layers that enable geologists to decipher the sequence of events in the natural history of the earth that formed the landscape as we see it today. This is the ultimate goal of the geological sciences. Finding minerals, fossils, oil, and water are simply spin offs from the study of geology.

A **type section** or **type locality** is the exposure of rock from which a stratigraphic unit is first described. Type sections and type localities are designated at a certain geographic locality, either in so many miles in one direction and so many in another from an established landmark or by legal descriptions. Most modern strati-graphers used the type section or type locality. In older literature, the geologist may have used a **type area**.

A type area is quite general, and may refer to a large area. When Meek and Hayden described the Dakota Group of late Cretaceous age, they used the name Dakota for Dakota County, Nebraska. Similarly, N. H. Darton named the Ogallala Group of Miocene/Pliocene age for the area around Ogallala, Nebraska, but he never specified any certain section.

Stratigraphy applies not only to the study of bedded sedimentary rock, but to igneous and metamorphic rocks as well as time units. Next month, I'll continue with some of the nuts and bolts of stratigraphy.

## The Miner's Ledger

Back in the desert hills, I found a crumbling mine  
that had been abandoned for a very long time.  
A stone and stick or two, through rotting frame I threw,  
to roust the rattlesnakes, so I could see the place.

Into the slope I went; lamp lit, head low, back bent,  
the old mine to explore. Also to find some ore.  
Just inside the entrance, where lingered light of day,  
I saw where he had chanced to live a miner's way.

Against the wall, his things...table with coffee pot,  
a wooden shelf with cans, and a crude wooden cot.  
Then I went further back to the interior  
and stood in total black. The mine got scarier.

With my dim lamp alit, along old tracks I went,  
finding lots of tools, a sledgehammer and drill bits.  
It began to appear as if he were still here.  
Looking this way and that, I felt a prick of fear.

I came to some rubble, at a bend of the tunnel,  
and all of a sudden, my hair stood on the ends!  
There was a funny smell. Then I looked down to see  
dynamite at my feet, oozing a nitro gel.

Into a wall of gold, in holes drilled long ago,  
I saw old fuses go, oozing some more nitro.  
I was scarcely breathing, not ready for heaven yet,  
and ever so slowly, I turned around and fled.

When back at the entrance, I paused to take a look,  
sitting on his old bench, I spied a crumbling book.  
Usually, in life, without a backward glance,  
to look through our old mines, we do not get the chance.

Now, this chance came my way as I opened the cover  
of Pat Derry's diary and his mining ledger.  
His was a hard story of danger, muck, drill blast,  
to find a lode of gold, and escape from his past.

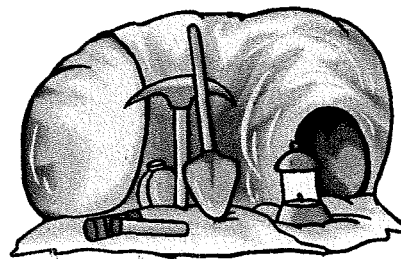
In 1883 he'd spotted mineral sheen;  
drilling, blasting, mucking, he had followed the seam.  
Drill, blast, muck. Drill, blast muck.  
He worked on without luck.

Yet, with each passing day,  
some treasure'd come his way.  
Quartz crystals in his light. Clear, sparkling, radiant.  
And then a wall revealed, of pure golden pyrite.

But supplies had run low, Apaches were about.  
He knew that he must go for help, to Socorro.  
He'd do it tomorrow, after a final blast.  
But, alas....

This page of his diary was the last!!!!

By John Scully,  
(printed with permission of the author,  
submitted by Susy McMahan)



## Rockhound Trivial Pursuit?

Sometimes at a gathering or party, when word games are being played, someone will ask for an English word that has three Y's in it. The standard answer is "Syzygy", a term that applies to crinoid stems and how the columnals sections connect to one another. "Synonymy" also has three Y's in it.

What "syzygy" refers to is the way the crenellae, the little radial ridges that extend from the center toward the exterior of the crinoid stem, touch those on the next columnal. The Treatise on Invertebrate Paleontology gives a fairly difficult to understand description of "syzygy". The easiest way to explain it is this. If you've ever driven a car with a stick shift and you grind the gears, you might think of the gears as being in "syzygy"; that is, the ridges are riding atop one another. The same is happening on a pair of successive crinoid columnals. "Synarthy" is the condition in which the ridges of the crenellae fit into the valleys between the ridges. If you are driving a stick shift car, you want the gears in "synarthy", not in "syzygy."

Submitted by Roger Pabian

## 2003 ELECTED OFFICERS

|                            |                    |                              |             |       |               |
|----------------------------|--------------------|------------------------------|-------------|-------|---------------|
| President                  | Susy McMahan       | 5636 Greenwood St.           | Lincoln, NE | 68507 | 464-0065      |
| 1 <sup>st</sup> Vice Pres. | Pat Akins, Jr.     | 5017 No. 6 <sup>th</sup> St. | Lincoln, NE | 68521 | 477-1322      |
| 2 <sup>nd</sup> Vice Pres. | James Marburger    | 330 Locust                   | Hickman, NE | 68372 | 792-2348      |
| Secretary:                 | Vera Lyman,        | 420 N. 56th St.              | Lincoln, NE | 68504 | 464-6089      |
| Treasurer:                 | Phyllis Parks      | 2345 So. 19th St.            | Lincoln, NE | 68502 | 476-6798      |
| Board Member               | David Heffelbower, | 1819 Washington St.          | Lincoln, NE | 68502 | cell 890-2794 |
| Board Member               | James Atkins       | 3028 So. 35th St.            | Lincoln, NE | 68506 | 483-1610      |

### Nominating Committee

|         |                   |
|---------|-------------------|
| 3 years | Amy Dexter-Guy    |
|         | Edward Ridge      |
| 2 years | John Harrison     |
|         | Aulden Stewart    |
| 1 year  | Judy Reilly       |
|         | David Heffelbower |

Chairman-Immediate Past President James N. Atkins

### Long Range Planning & By-Laws Committee

|         |                    |
|---------|--------------------|
| 3 years | Susan Taylor       |
|         | Edward Ridge       |
| 2 years | Vera M. Lyman      |
|         | Roger K. Pabian    |
| 1 year  | Charles Wooldridge |
|         | Kevin Schwartman   |

### Standing Committees

|                               |  |                 |                   |
|-------------------------------|--|-----------------|-------------------|
| Education / Librarian         | Roger Pabian   | MWF Liaison:    | Vera Lyman        |
| Field Trips:                  | Pat Akins, Coordinator                                   | Scholarship:    | Vera Lyman        |
| Historian:                    | Susy McMahan   | Christmas Party | Edward Ridge      |
| Membership Record:            | Edward Ridge   | 2003 Show:      | John E. Harrison  |
| Programs:                     | Roger Pabian   | 2004 Show:      | Roger Pabian      |
| Property:                     | Pat Akins, Jr.   | 2003 Swap       | David Heffelbower |
| Youth Activities:             | Kay Jurgens & Committee                                  | 2004 Swap:      | Pat Akins, Jr.    |
| Refreshments<br>& Door Prizes | Judy Reilly  |                 |                   |
| Housing Committee:            | Susy McMahan, Pat Akins, Charles Wooldridge & Vera Lyman |                 |                   |
| Auditing Committee:           | John Harrison, Roger Pabian, James Marburger             |                 |                   |
| Geology Day Coordinator :     | 2nd Vice President                                       |                 |                   |

L. G. M. C. web address—courtesy of Jim Atkins:

<http://incolor.inetnebr.com/jna/gemclub/lgmc.htm>

### Your PICK & SHOVEL Staff

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The purpose of this corporation shall be to study, promote an interest in, and disseminate knowledge of lapidary and various Earth Sciences including but not necessarily limited to geology, paleontology and mineralogy. It shall be a particular purpose of the corporation to provide education in these fields to its members and the general public, especially to youth and student groups.

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**Dues to Lincoln Gem & Mineral Club are as follows:**

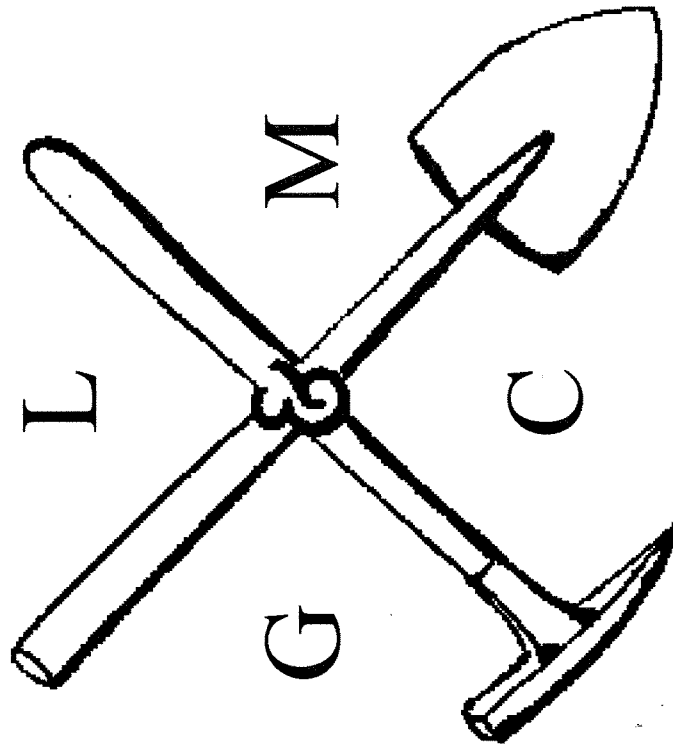
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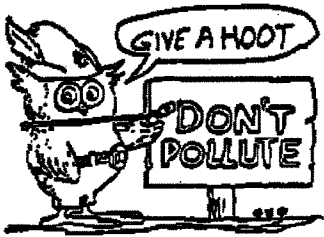
**New memberships must be approved by the Board, after the applicant attends at least one meeting of the club and pays the above dues plus a \$5.00 registration fee.**

# THE PICK & SHOVEL

October 2003

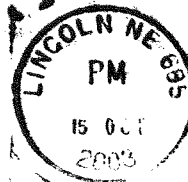


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