

Engaging Professionals and the Public: Outreach Efforts of the Friends of the University of Michigan Museum of Paleontology

David Clark – President

Friends of the University of Michigan Museum of Paleontology



“Friends” History

- Founded in 1971 with support and encouragement of Dr. Robert Kesling
- Currently, Dr. Dan Fisher and Dr. Dan Miller represent the Museum, attend our meetings and share activities
- Focused on charitable, educational and scientific work
- ~75 active members



Image: Wikimedia commons public domain

MichiganBasinFossils.org Photo Database

- Developed with NSF grant (S. Peters – Principal Investigator, J. Czaplewski, T. Baumiller, P. Kishor & M. McClennen)
 - Same team that developed The Paleobiology Database (paleobiodb.org)
- Populated with photos from our members' personal collections and the University of Michigan Museum of Paleontology collection
- Over 1600 images with 700+ taxa

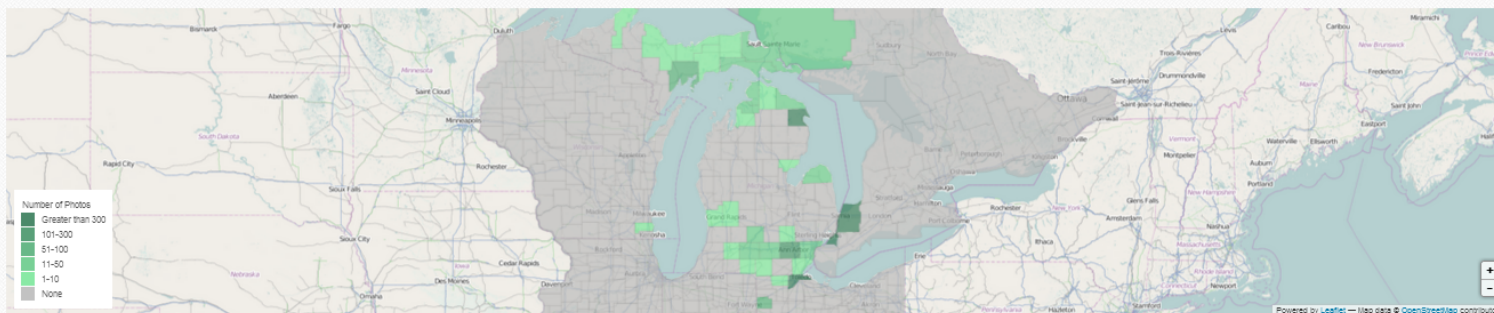
MichiganBasinFossils.org



Friends of the UMMP Michigan Basin Specimen Database

Featuring 1630 images of 721 taxa from 41 users last updated on January 07, 2014

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134 Arthropods



502 Echinoderms



313 Brachiopods



239 Coral



Taxa, Locality, Stratigraphy & Comments

UMMP Photo Archive

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Trilobite cluster

Submitted by: David Clark

Taxa: *Basidechenella arkonensis*, *Eldredgeops*

Submit date: 2011-12-27

Location (approximate): Arkona, Lambton, ON

Strat unit: [Hungry Hollow Formation](#)

Age: [Erian](#) (Middle Devonian)

Submitter notes: Beautifully preserved *Basidechenella* with the axial spines. The *Eldredgeops* on the bottom right is a molt and missing it's head.



(c) David Clark

From PaleoDB:

PaleoDB data unavailable

Deep Blue:

[Basidechenella](#)

[Eldredgeops](#)


Please log in above to add a new comment



Funding provided by NSF EAR #1150082

Produced by the [Macrostrat Lab](#) at the University of Wisconsin-Madison Department of GeoScience

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Your query "Basidechenella" produced 10 result(s).


Search Results


Now showing items 1-10 of 10


1

[Two Unusually Well-Preserved Trilobites from the Middle Devonian of Michigan and Ohio](#)
Stumm, E. C. (Museum of Paleontology, The University of Michigan, 1968)
 (537.2KB)

[Two New Species of Trilobites from the Middle Devonian Silica Shale of Northwestern Ohio](#)
Stumm, E. C. (Museum of Paleontology, The University of Michigan, 1965)
 (401.6KB)

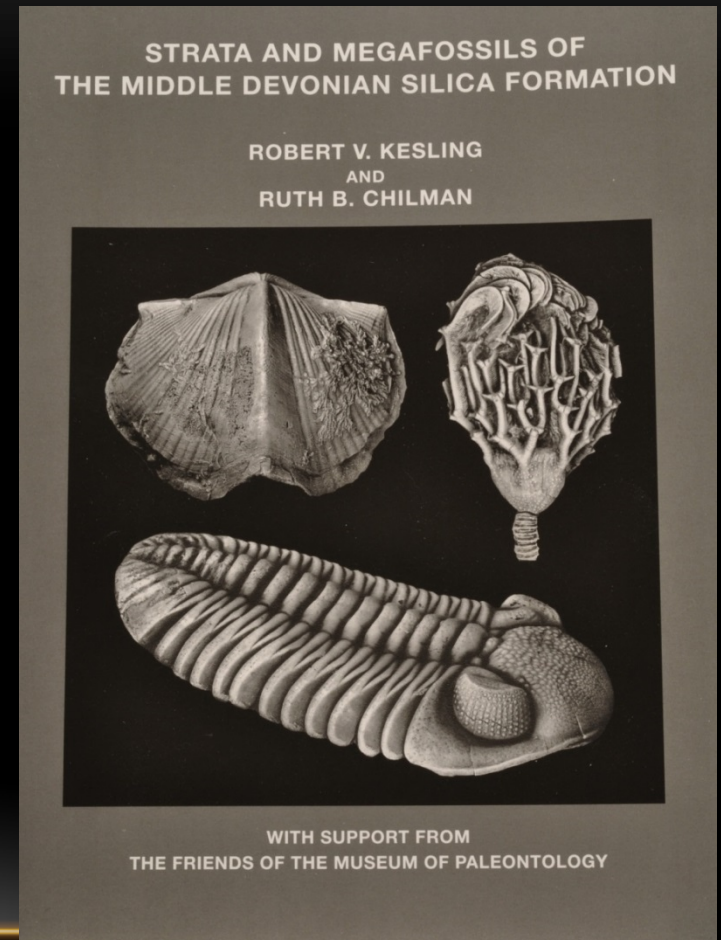
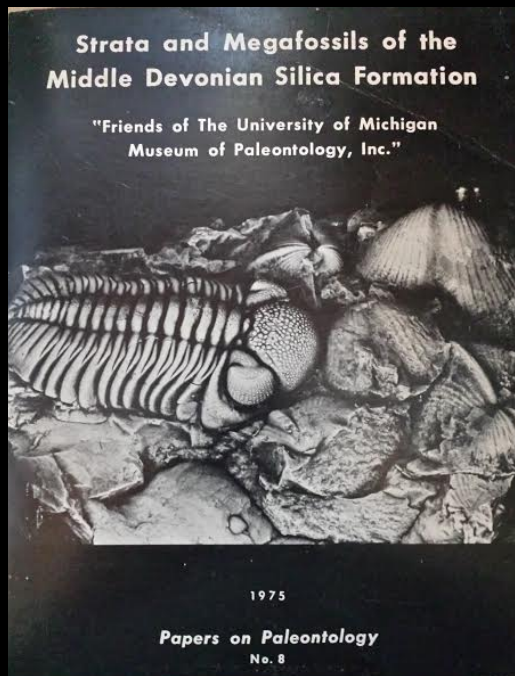
[Silicified Trilobites from the Devonian Jeffersonville Limestone at the Falls of the Ohio](#)
Stumm, E. C. (Museum of Paleontology, The University of Michigan, 1964)
 (1.3MB)

[Lower Middle Devonian Proetid Trilobites from Michigan, Southwestern Ontario, and Northern Ohio](#)
Stumm, E. C. (Museum of Paleontology, The University of Michigan, 1953)
 (1.8MB)

[Devonian Trilobites from Northwestern Ohio, Northern Michigan, and Western New York](#)
Stumm, E. C. (Museum of Paleontology, The University of Michigan, 1967)
 (1.2MB)

“Silica” Book

- “Strata and Megafossils of the Middle Devonian Silica Formation” originally published in 1975
- Reprinted in 2013 with rescanned plates
- To order: www.crinus.info/silica.html



"Friends" Display Case in Ruthven Exhibit Museum

The Michigan Basin's number one trilobite!



Trilobites (pronounced TRY-low-bit) are one of the many types of fossils found in the Michigan Basin. One of the most commonly found species of trilobite in this region is called *Eldredgeops rana* (pronounced el-DRED-gee-ops RAY-na). It lived in the Middle Devonian Period, about 380 million years ago. To the left is a drawing of what it might have looked like when it was alive.

What are trilobites?

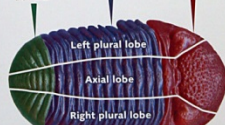
Trilobites belong to a group of animals called **arthropods** (characterized by a hard shell called an exoskeleton, a segmented body, and segmented limbs). They ranged greatly in size. The smallest species were about the size of the head of a pin, while the largest were nearly two feet long. Trilobites are now extinct, but were once one of the most abundant creatures populating the prehistoric sea floor.

The name trilobite means "three-lobed creature" because of the division of the body into three lobes running the length of the body. Trilobites are also divided into three sections from front to back.

The **pygidium** is made up of fused segments, similar to the articulated segments in the thorax.

The **thorax** consists of articulated segments that allowed the trilobite to roll up for defense.

The **cephalon**, or head shield, contained the mouth, stomach, and eyes.



Trilobites have a long history

Trilobites first appeared early in the Cambrian period, about 540 million years ago, and survived for over 300 million years! During this time trilobites evolved and diversified into thousands of species, adapting many different lifestyles as filter feeders, scavengers, and even predators. Trilobites finally became extinct near the end of the Permian period, about 250 million years ago.

This chart summarizes the long evolutionary history of trilobites. The blue bar indicates the span of time in which trilobites lived.

Check out the eyes

Trilobites survived for nearly 300 million years. During this time they evolved and diversified into many different forms. At present there are over 17,000 species of trilobite known from fossil remains. Scientists often examine the structure of trilobite eyes as a method of identifying different species. Trilobites had a compound eye, made up of many small lenses.

13



15



17



19



20



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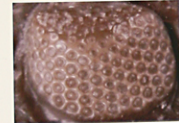
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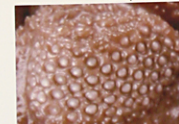
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In the three photos below of trilobite eyes from different species, the lenses are the small circular bumps. Which species has the most lenses?

Eldredgeops crassituberculata



Phacops iowensis



Eldredgeops milleri



Images: John Topor

This side view of the head of a specimen of *Eldredgeops rana* shows the orientation of the eyes. The left eye is outlined in white.

Images: J. Topor

Volunteer Efforts

- Members helped relocate invertebrate collection to new building
- Volunteer for National Fossil Day, Identification Day, Dino Day at Museum
- Presentations for Boy Scouts, MENSA youth, elementary schools, senior centers



Image: D.Clark

Volunteer Efforts: Brennan Mastodon in Saline, MI

- 1992 excavation south of Ann Arbor
- Tusks, teeth and bone recovered
- 75 yard long trackway with 30 prints
- 8 prints were cast in fiberglass



Financial Support for Research

The Friends are a 501C non profit group

- Financial aid for Dr. Fisher's team to travel to Siberia for mammoth research



Images: National Geographic – F.Latreille

Financial Support for Research – 3D Imaging

- Purchased Canon T2i Digital SLR camera, PhotoModeler photogrammetry software, and 3dSOM modeling software to support Dr. Miller's 3D digitization of the Museum's collection
- Spinocyrtia brachiopod
- Eldredgeops trilobite

Specimen Donations to Museum

Our members have donated hundreds of specimens, many previously undescribed

- *Rutkowskicrinus patriciae* – new crinoid genus
- *Arkonips topororum* – pyritized polychaete worm
- *Acinetaster konieckii* – new brittlestar
- *Arkonaster topororum* – 28 armed starfish

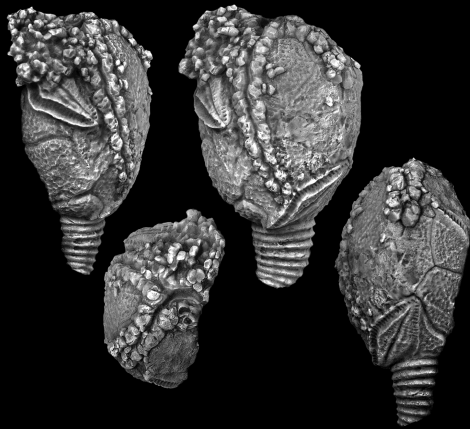


Image: C.Sumrall



Image: J & M.Topor

2003 Discovery, Removal and Preparation: *Arkonaster topororum*



Partially Uncovered



Trenching



Stabilizing



Ready for Removal









Social Media: The Fossil Forum

- ID support, Photo Gallery, Collecting, Gear, and Prep Advice, Trades
- Wide spectrum of Paleo experience



The screenshot displays the homepage of 'The Fossil Forum'. At the top left is a large trilobite fossil image. The title 'The Fossil Forum' is centered in a stylized font. To the right is a search bar and a 'Forums' button. Below the header is a navigation bar with links: Forums, Gallery, Blogs, Calendar, Links, Awards, Chat, and a 'View New Content' button. The main content area is divided into three sections: 'Recent Gallery Images' showing a row of fossil photos, 'Board News' listing forum categories with topic and reply counts, and 'Recent Topics' listing recent forum posts. A 'Forum Donation' section at the bottom right includes a PayPal logo and a 'Donate' button.

The Fossil Forum

Search... Forums

Forums Gallery Blogs Calendar Links Awards Chat View New Content

Recent Gallery Images

Recent Topics

- Two 5" Megalodon Teeth From Today. megateeth - Today, 06:59 PM
- Enchodus Prep Morocco AncientEarth - Today, 06:22 PM
- Any Ideas jgcx - Today, 05:43 PM
- More Pics bigjohn835 - Today, 05:42 PM
- Its Been Awhile bigjohn835 - Today, 05:35 PM

Board News

Category	Topics	Replies	Latest Post
Member Introductions New? Please introduce yourself	2,970 topics	32,991 replies	Hello Everybody. By mkrodrms Today, 01:45 PM
Announcements & Rules For Admin or Mod use only. To announce board changes or additions.	132 topics	2,147 replies	For New Members, Please Read. By Fossilzombie 12 Dec 2013
F.A.Q.s re: Forum Functions & Tips on Style Quick tips on common board operating issues. (Not a discussion forum; if the help you seek is not in here, just ask in Help & Suggestions)	6 topics	0 replies	Identification Posting For... By Auspex 18 Nov 2013
Help & Suggestions Discussions Have a question about using the Forum's features? If the answer isn't in here already, please ask!	567 topics	4,650 replies	Problems Using Quote Option By Auspex Today, 04:52 PM

Forum Donation

Help support The Fossil Forum! We appreciate all donations.

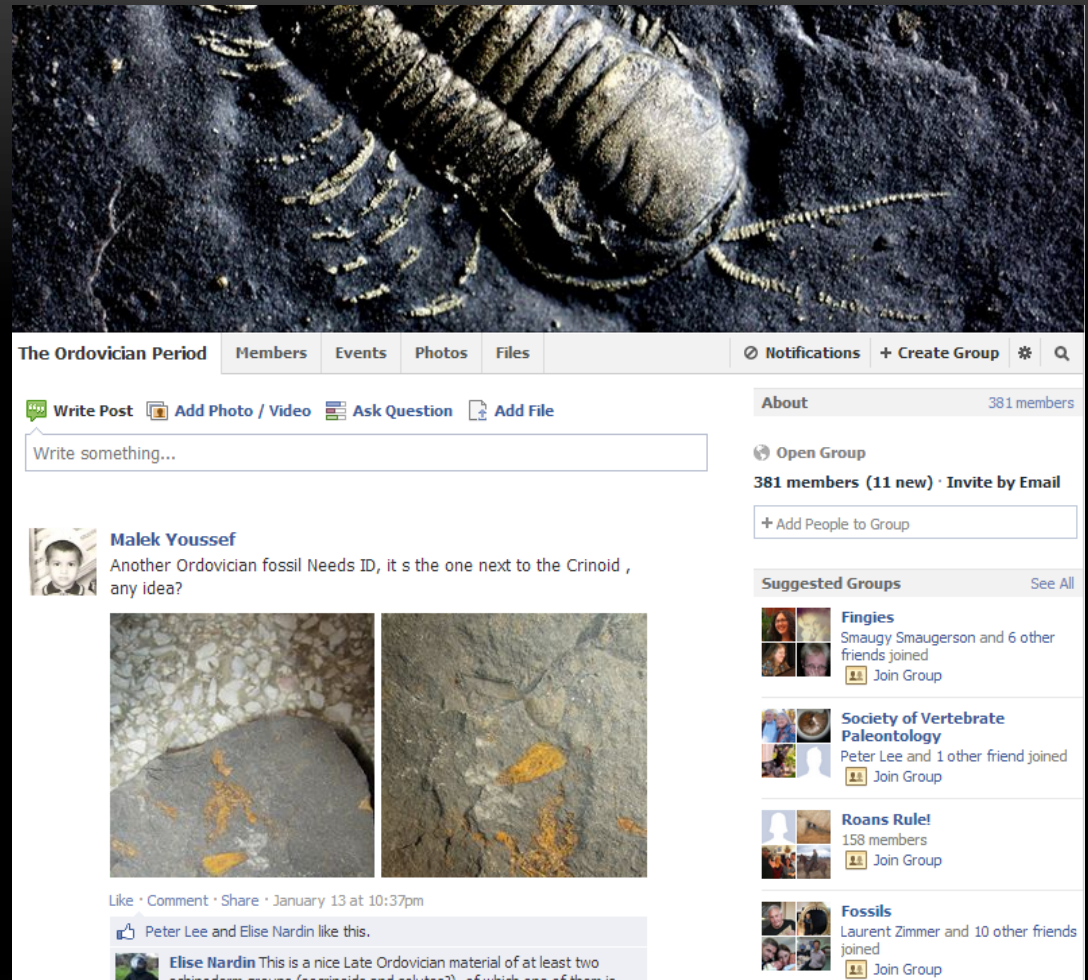
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5.00 USD Donate

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Social Media: Facebook Groups

- Time Periods
- Trilobites
- Vertebrates
- Echinoderms
- Gastropods
- Micropaleontology
- Fakes & Restoration




The screenshot displays the Facebook group page for "The Ordovician Period". The group has 381 members and is an open group. The header features a large image of a trilobite fossil. Below the header, there are tabs for "Members", "Events", "Photos", and "Files". A post by Malek Youssef is visible, asking for identification of an Ordovician fossil. The post includes two images of fossilized specimens. The right sidebar shows suggested groups, including "Fingies", "Society of Vertebrate Paleontology", "Roans Rule!", and "Fossils".

The Ordovician Period Members Events Photos Files Notifications + Create Group

Write Post Add Photo / Video Ask Question Add File

Write something...

Malek Youssef
Another Ordovician fossil Needs ID, it s the one next to the Crinoid , any idea?



Like · Comment · Share · January 13 at 10:37pm

Peter Lee and Elise Nardin like this.

Elise Nardin This is a nice Late Ordovician material of at least two echinoderm groups (ocrinoids and oolites?) of which one of them is

About 381 members

Open Group

381 members (11 new) · Invite by Email

+ Add People to Group

Suggested Groups See All

Fingies
Smaugy Smaugerson and 6 other friends joined
Join Group

Society of Vertebrate Paleontology
Peter Lee and 1 other friend joined
Join Group

Roans Rule!
158 members
Join Group

Fossils
Laurent Zimmer and 10 other friends joined
Join Group

Social Media: Twitter Hashtags



ROM Palaeontology @ROMPalaeo

17 Dec

#trilobitetuesday! Here's a fave: *Ogygopsis klotzi* moult (ROM 59552) Cambrian, Mt Stephen Trilo Beds, Yoho NP
pic.twitter.com/M3qN3lyLSN

Expand

Reply Retweet Favorite More



Kiron Mukherjee @kironcmukherjee

17 Dec

It's **#trilobitetuesday!** Follow the tag to see wonderful specimens from around the world! #toronto... instagram.com/p/iBiPM5Jm8-/

Expand

Reply Retweet Favorite More



David Clark @Clarkeocrinus

10 Dec

Basidechanella arkonensis & *Eldredgeops rana* from the Devonian Hungry Hollow Mb., Arkona, Ont. **#TrilobiteTuesday**
pic.twitter.com/M4p0VwE7Ow

View photo

Reply Delete Favorite More

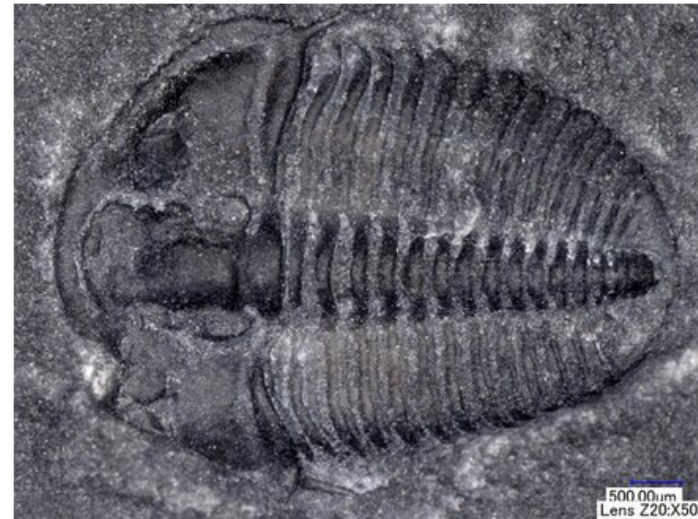


David Clark

@Clarkeocrinus

7 mm *Gravicalymene magnetuberculata* with genal spines, Ord., NY. 12+ mm specimens lose the spines. **#FossilFriday**
pic.twitter.com/EPOaak7FJw

Reply Delete Favorite More



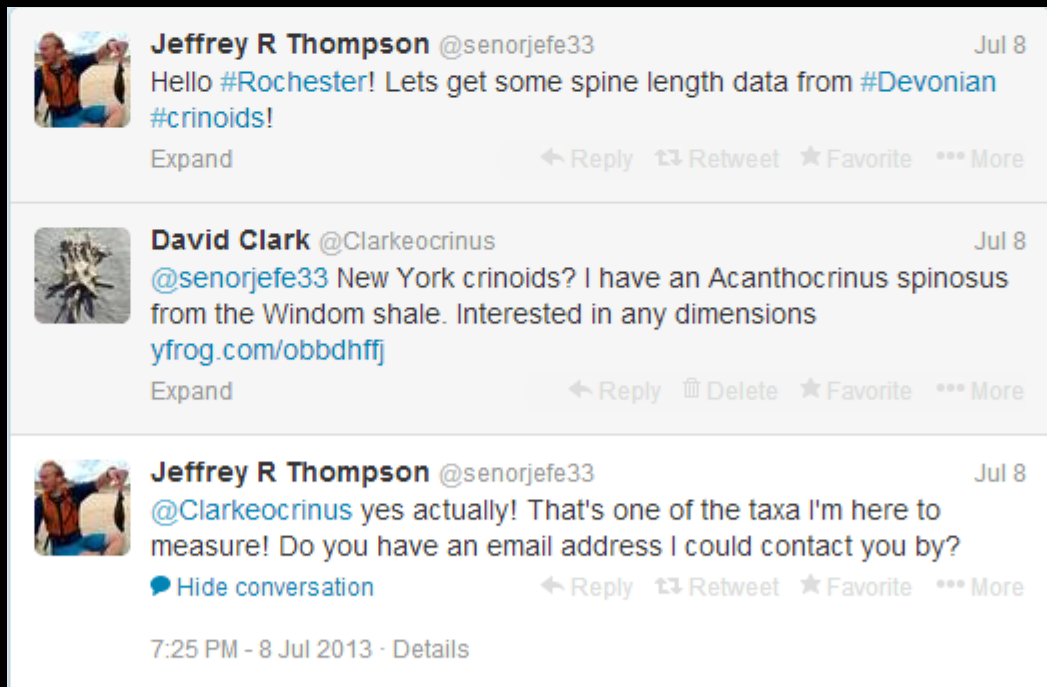
1
RETWEET

2
FAVORITES



Social Media: Professional Outreach

- Jeff Thompson was a student research assistant at Ohio State University coding morphological characteristics of Paleozoic crinoid echinoderms for the Assembling the Echinoderm Tree of Life (AeToL) project.



The screenshot shows a Twitter thread from July 8, 2013. The first tweet is from Jeffrey R Thompson (@senorjefe33) to #Rochester, asking for spine length data from Devonian crinoids. The second tweet is a reply from David Clark (@Clarkeocrinus) to Jeffrey, mentioning an Acanthocrinus spinosus specimen and providing a website link. The third tweet is a reply from Jeffrey to David, asking for an email address to contact him.

Jeffrey R Thompson @senorjefe33 Jul 8
Hello #Rochester! Lets get some spine length data from #Devonian #crinoids!
Expand Reply Retweet Favorite More

David Clark @Clarkeocrinus Jul 8
@senorjefe33 New York crinoids? I have an Acanthocrinus spinosus from the Windom shale. Interested in any dimensions
yfrog.com/obbdhffj
Expand Reply Delete Favorite More

Jeffrey R Thompson @senorjefe33 Jul 8
@Clarkeocrinus yes actually! That's one of the taxa I'm here to measure! Do you have an email address I could contact you by?
Hide conversation Reply Retweet Favorite More

7:25 PM - 8 Jul 2013 · Details



Social Media: Museum Mascots – SUE the Trex



Specimen FMNH PR2081 @SUEtheTrex

16m

Look, I'm not saying I ate Clay Matthews thumb to help the Chicago Bears out today, but I'm not NOT saying it.
[#HelpingOutMyNextDoorNeighbor](#)

Expand

← Reply ↻ Retweet ★ Favorite ... More



Specimen FMNH PR2081 @SUEtheTrex

25 Dec

Anyone know how long a reindeer carcass keeps? Asking for a friend.

Expand

← Reply ↻ Retweet ★ Favorite ... More



Specimen FMNH PR2081 @SUEtheTrex

24 Dec

Getting coal in your stocking when you're a dinosaur is EXTRA cruel.
"Here's some fossilized biomass. Hope it wasn't anyone you know!"

Expand

← Reply ↻ Retweet ★ Favorite ... More



Specimen FMNH PR2081 @SUEtheTrex

22 Aug

"@FieldMuseum to get piece of California meteorite" We're getting ANOTHER one?!? This is just mean to us dinosaurs.
abclocal.go.com/wls/story?sect...

📄 View summary

← Reply ↻ Retweet ★ Favorite ... More



Image: Wikipedia Creative Commons

Thank you!
Questions?