

# Inland Geological Society

## Newsletter of the Inland Geological Society

Volume 35 No. 9

November 2019

**Next Meeting:**  
**Tuesday,**  
**November 5th**

**Time:**  
**Social: 6:00pm**  
**Dinner and**  
**Presentation:**  
**7:00pm**

**Location:**  
**Jurupa Mountains**  
**Discovery Center**  
**7621 Granite Hill Dr.**  
**Jurupa Valley, CA**  
**92509**

**Coming to**  
**Dinner?**  
**Please RSVP**  
**by November 3rd to:**  
**rsvp.igs@gmail.com**

### **In this issue:**

- November Speaker: Dr. Sarah Maithel ..... 1
- Announcements / Upcoming Events ..... 2-4
- IGS Meeting Schedule ..... 5
- Meeting Location & Current IGS Officers ..... 6

### **November Speaker:**

Dr. Sarah Maithel

### **Characterization of Cross-Bed Depositional Processes** **in the Coconino Sandstone**

### **Abstract:**

The Permian Coconino Sandstone of northern and central Arizona is widely recognized as a classic eolian dune deposit, with conspicuous large-scale cross-beds that are interpreted as preserved dune foresets. Even though the formation is well known, fine-scale process models have not been adequately developed to explain its cross-bed deposition. Furthermore, observed discrepancies between the sandstone and some eolian criteria suggest that additional study is needed to explore and refine these process models. To interpret cross-bed depositional processes, sedimentary textures and structures were described in multiple outcrops across northern Arizona. A methodology was also developed to disaggregate the well-cemented sandstone, which is characteristic of most localities. Observed textures and sedimentary structures suggest that the cross-beds may consist of grainflow and grainfall deposits, but these are not readily differentiated at outcrop and thin section scales. This characterization of fine-scale processes will serve as a critical piece of the puzzle as researchers seek to understand the deposition of the Coconino Sandstone.

### **Biography:**

Sarah Maithel received her BS in geology from Cedarville University and her PhD in Earth Science from Loma Linda University. Her research interests broadly include clastic sedimentology, sandstone petrography, and eolian processes, with her current research focusing on sedimentary structures and processes in the Coconino Sandstone. She is currently completing a post-doctoral fellowship at Loma Linda University, and loves spending time at her Arizona field sites and learning new laboratory methods for processing sedimentary rocks.

## **ANNOUNCEMENTS AND EVENTS:**

### **Upcoming IGS Meetings:**

**December 4, 2019**

TBA

**January 7, 2020**

Mark D. Edwards, P.G., P.Gp. and Patrick F. Lehrmann R.G. (AZ) - Southwest Geophysics

Modern Geophysics as a stand-alone data or supplement data for the interpretation of geologic conditions

**Check out IGS's Facebook Page at  
<https://www.facebook.com/groups/InlandGeo/>**

COGGE Webinar Series

[Dr. W. Allen Marr](#)

### **Geotechnical Aspects of Tailings Dams & their Failures**



The recording and slides from COGGE's popular September 5<sup>th</sup> webinar:

Geotechnical Aspects of Tailings Dams and their Failures, presented by Dr. W. Allen Marr are available on line:

- Access the recording: <https://www.youtube.com/watch?v=gmAok-GDaOs>
- Access the slides: <https://tinyurl.com/Marr-Slides>

This and past webinars are also available on the COGGE Events page at:  
<http://dels.nas.edu/global/besr/COGGE-Events>

Plan ahead for the **Geological Society of Nevada's** 2020 Symposium, *Vision for Discovery: Geology and Ore Deposits of the Basin and Range*, scheduled for May 12-24, 2020, at the Nugget Casino Resort in Sparks, Nevada. Abstract submittal will open soon! For more information, visit the organization's website at <http://www.gsnv.org/2020-symposium/>.

Dear Colleagues:

I am pleased to announce the completions of the Fall 2018 Cooperative Well Measuring Program.

This season we have requested data from 81 water agencies from the Upper Santa Ana, San Jacinto and western Whitewater River Watersheds.

5,198 well are in the spreadsheet  
2,447 are considered "active"  
2,751 are considered "closed" and assumed abandoned

I received 1,423 reported water levels (excluding a good number reported as dry)

A large number of these wells (active and closed) have data back to 1993 on this spreadsheet and data back to the Spring 1964 is available in interesting formats.

If you would like a copy of this years report, I am holding the subscription fee at \$150 for this seasons work.

Many of you know I am now semi-retired, points to anyone who can find Grenada California, so your continued support of this semi-annual report keeps me willing to keep slugging thru pages of water levels in various formats :)

If you have any questions, please give me a call!

THANKS!

Steven E. Mains  
Watermaster Support Services

[watermains@aol.com](mailto:watermains@aol.com)  
951-201-6571 cell

P.O. Box 250  
Grenada, CA 96038

#### **BPESLG Announcement:**

On November 30, 2018 the California Board for Professional Engineers, Land Surveyors, and Geologists (Board) published the Geology Education Rulemaking Notice. The Board proposes to adopt Title 16, California Code of Regulations sections 3022, 3022.1, 3022.2, and amend Title 16, California Code of Regulations section 3031.

Please visit our webpage to view the Initial Statement of Reasons and the proposed text. [https://www.bpelsg.ca.gov/about\\_us/rulemaking.shtml](https://www.bpelsg.ca.gov/about_us/rulemaking.shtml) Comments from you are very important. Comments regarding suggested changes as well as comments indicating areas of agreement are equally important to the process. Instructions for providing comments are included with the public notice.

Visit the  
**Jurupa Mountains Discovery Center**  
7621 Granite Hill Drive, Jurupa Valley, California 92509  
951.685.5818

The Jurupa Mountains Discovery Center hosts the Ruth and Sam Kirkby Earth Science Museum, which houses a unique collection of exhibits including the Crestmore Quarry, fluorescent minerals, Indian artifacts, mining exhibits, petrified wood, sea shells, dinosaur exhibits, fossils, rocks and minerals, and many more.

The onsite Granite Hill Nursery stocks a large variety of cacti and succulents, and the gardens showcase mature and unique species over several acres. A collection of butterfly gardens is under construction as part of ongoing Eagle Scout Service Projects. The Center also provides hands-on educational kits for educators, houses a critter corner in the gift shop, and hosts themed toddler times on Friday afternoons.

The Center is always looking for volunteers to assist in the many on-going activities from light construction work to assisting with tours and programs. This is a worthwhile and fulfilling opportunity for scientifically-minded individuals of all ranks, from students through working professionals to retirees. This service will look great on your resume! Please contact Executive Director Wes Andree at 951/685-5818 or [director@jmdc.org](mailto:director@jmdc.org) for further details.

*Visit the website at <https://jmdc.org> to learn more about the Jurupa Mountains Discovery Center!*



## Upcoming Meetings/Events

### Inland Geological Society

In 2019, the Inland Geological Society will meet the first Tuesday or Wednesday of each month. For more information, visit our website at [www.inlandgeo.org](http://www.inlandgeo.org).

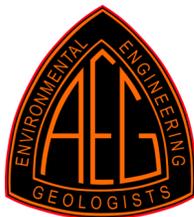
### South Coast Geological Society



Monthly dinner meetings are typically the first Monday of each month. For more information, visit the association website at [www.southcoastgeo.org](http://www.southcoastgeo.org).

### AEG—Southern California Chapter

The AEG — Southern California Chapter typically meets the second Wednesday of each month at Victorio's Ristorante in North Hollywood. For more information, visit the association website at [www.aegsc.org](http://www.aegsc.org).



### AEG—Inland Empire Chapter

The AEG — Inland Empire Chapter typically meets the third Wednesday of each month at Pinnacle Peak Steakhouse, 2533 S. La Cadena Drive, Colton. For more information, visit the association website at [www.aegsc.org/chapters/inlandempire](http://www.aegsc.org/chapters/inlandempire).



### Rock & Gem Shows—various locations

Various rock and mineral shows will be held throughout southern California. To find one near you, visit [www.rockngem.com](http://www.rockngem.com), then select the Show Dates tab.

### San Diego Association of Geologists

Meetings are usually held the third Wednesday evening of each month.

For more information, visit the association website at [www.sandiegogeologists.org](http://www.sandiegogeologists.org).

### Los Angeles Basin Geological Society



Monthly lunch meetings are typically the 4th Thursday of each month from 11:30 am to 1:00 pm at the Willow Street Conference Center, 4101 E. Willow Street, Long Beach. For more information, visit the association website at [www.labgs.org](http://www.labgs.org).

For more information, visit the association website at [www.labgs.org](http://www.labgs.org).

### Get Your IGS Coffee Mug!

IGS coffee mugs are available at the monthly meetings for \$10. Get yours at the upcoming meeting!



**IGS MEETING LOCATION:**  
**Jurupa Mountains Discovery Center**  
 7621 Granite Hill Drive  
 Jurupa Valley, California 92509



## **IGS OFFICERS**

### **President**

Jessie Bagby  
 Colorado River Basin RWQCB  
 jessie.p.bagby@gmail.com  
 951.551.7804

### **Vice President**

Jeff Fitzsimmons  
 Lahontan RWQCB  
 geojeff08@att.net  
 951.212.5018

### **Web Master**

Lance Pompe  
 lpome@llu.edu

### **Treasurer**

Margaret Gooding  
 mgooding@roadrunner.com  
 909.434.5377

### **Secretary**

Shanna Delgado  
 Project Analyst  
 rsvp.igs@gmail.com

### **Membership Chairman**

Albino Esparza  
 IGS.Membershipchair@gmail.com  
 (909)471-1791

### **Newsletter Editor**

Hunter Steinmuller  
 UCR Undergraduate Student  
 hunter.steinmuller@yahoo.com