Inland Geological Society

February 2019

Newsletter of the Inland Geological Society

Volume 35 No. 2

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February Speaker: Jeffrey R. Keaton

"Terrain + Fire + Rain = Muddy Disaster in Montecito, January 9, 2018"

Abstract:

The Santa Ynez Mountains above Montecito are comprised of steeply dipping Tertiary sedimentary rocks that include thick-bedded durable sandstone formations with interbeds of softer rocks. The drainage basins have large upper subbasins separated from the coastal plain where Montecito is located by narrow steep-sided canyons. Alluvial fan deposits on the coastal plain contain boulders and cobbles of prehistoric debris flows.

The Thomas Fire burned the slopes above Montecito in December 2017, and a strong winter storm moved across the slopes on January 8 and 9, 2018. The result was disastrous debris flows and flash flooding that killed 21 people, injured many others, and damaged or destroyed residential buildings and community infrastructure. Google Earth images help capture the magnitude of the disaster along the few stream channels that cross the coastal plain that had widespread impact on the community. (continued on p. 2)

<u>Next Meeting:</u> Tuesday, February 5th

<u>Time:</u> Social: 6:00pm Dinner: 7:00pm Lecture: 7:30pm

<u>Location:</u> Jurupa Mountains Discovery Center 2621 Granite Hill Dr

Discovery Center 7621 Granite Hill Dr. Jurupa Valley, CA 92509 (Map on pg. 7)

<u>Coming to</u> <u>Dinner?</u> Please RSVP to Shanna by Sunday, 2/3 rsvp.igs@gmail.com

Speaker Biography:

Jeffrey R. Keaton specializes in quantifying hazardous natural processes for siting and design of all types of facilities in all geologic environments. He has degrees in geological engineering, geotechnical engineering, and geology, and is licensed as an engineer and as a geologist. Keaton has been employed by consulting firms for over 45 years, and in Wood's Los Angeles office since 2005 where he is a principal. He has remained active in professional societies throughout his career and is Honorary Member of Association of Environmental & Engineering Geologists, Fellow of Geological Society of America, and Fellow of American Society of Civil Engineers.

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

Contact Margaret Gooding at at mgooding@roadrunner.com to join.

ANNOUNCEMENTS AND UPCOMING EVENTS

BPELSG Announcements:

January 7, 2019 - The 2019 Professional Engineers Act, Professional Land Surveyors' Act, and Geologist and Geophysicist Act, and their related regulations, are now available on the Board's website. (<u>https://www.bpelsg.ca.gov/laws/index.shtml</u>)

January 7, 2019 - The Board's Winter Bulletin is now available. (https://www.bpelsg.ca.gov/pubs/bulletin.latest.pdf)

Southern California Earthquake Center

The Southern California Earthquake Center (SCEC) is now accepting applications for Summer 2019 undergraduate internships with the Southern California Earthquake Center (SCEC). Learn more and apply at https://www.scec.org/internships.

SCEC offers two internship programs, each providing compensation of at least \$6500:

The Undergraduate Studies in Earthquake Information Technology (UseIT) Program challenges teams of undergraduates of diverse backgrounds with real-world earthquake issues that require collaborative, interdisciplinary applications of earth science and information technology (including high performance computing).

The SCEC Summer Undergraduate Research Experience (SURE) Program pairs undergraduates with SCEC scientists at that researcher's institution or field site. Projects for SURE interns span the spectrum of earthquake science.

Applications received by **the February 8**, will be considered in the first round of internship offers. Applications received after February 8 will be reviewed as needed.

You can contact internships@scec.org with any questions

AEG

A Shlemon Specialty conference titled *State of the Science: Investigation of Active Fault s in the Basin and Range Province* to be held at the UNLV Campus, Las Vegas, Nevada on March 28-29, 2019. For additional information, see the flyer at https://www.aegweb.org/resource/resmgr/shlemon_march_28-29_2019_ver.pdf, or contact John H. Peck (702-556-5229, email: peckj1@juno.com) or Gary Luce (775-883-1600, email: lucegc@charter.net).

AEG 2019 Annual Meeting Call for Abstracts



The Association of Environmental & Engineering Geologists 2019 Annual Meeting invites you to submit an abstract for publication and presentation at the 67th Annual Meeting in Asheville, North Carolina September 17-22, 2019. Abstract online submittal is now open. The deadline to submit your abstract is May 1, 2019. For complete meeting details and to register, please visit www.aegannualmeeting.org.

REGISTRATION NOW OPEN!



GEO-CONGRESS 2019

8th International Conference on Case Histories in Geotechnical Engineering Philadelphia, Pennsylvania | March 24-27





Top 5 Reasons to Attend

- Network with your colleagues from around the world.
- Attend Terzaghi, Peck, and Seed Award Lectures.
- Gain essential ethics and geo-business information at sessions provided by GBA.
- Visit exhibitors to find the latest tools, techniques, e-programs.
- Earn Professional Development Hours (PDHs) to maintain your professional licensure while gaining focused knowledge.
- **Experience Philadelphia.** A First World Heritage City, with its iconic 300 years of history amidst a vibrant 21st century culture and streets lined with parks, shops, public art, restaurants, and museums. Philadelphia is home to four Civil Engineering Historic Landmarks a perfect landing spot for civil and geotechnical engineers!

www.geocongress.org

Registration is now open for **AEG**'s *Risk Assessments for Dam and Levee Foundations Workshop* to be held April 24-26, 2019, in Denver, Colorado. This workshop will focus on the role and contributions of engineering geologists and geotechnical engineers in the Risk Informed Decision Making process in managing dam and levee safety programs, risks associated with geological potential failure modes, and communication with Risk Assessment teams. For additional course and registration information, visit the website at <u>https://www.aegriskworkshop.org</u>.

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 <u>http://www.gsnv.org/2020-symposium/</u>.

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 <u>director@jmdc.org</u> for further details.

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







SAVE THE DATES

33rd Annual

Desert Symposium and Field Trip

Symposium: April 19-20, 2019—Zzyzx, CA Field Trip: April 21-22, 2019—Ivanpah to Tecopa *Theme*:

Exploring Ends of Eras in the Eastern Mojave Desert

We'll examine historic mining in the area, the biologic changes associated with the Pleistocene to Holocene climate transition and potential sky island effects, and the timing and styles of Mesozoic thrusting and Cenozoic extensional tectomes.

Plan to submit a paper on one or more of these topics!

And share your research with an oral or poster presentation.

Abstract and paper deadline:	5 February 2019
Final submission of reviewed and revised papers:	12 March 2019
Registration deadline:	22 March 2019

We oncourage students to attend and compete for the Adams Best Student Presentation Award

The lield trip will return to Zzyzz Sunday night (April 21). The final day will end at Zzyzs so we can carpool on both days of the trip.

For more information please visit

DesertSymposium.org

The 2019 Desert Symposium is being held in cooperation with the Desert Studies Consertium, California State University, Fullerton The Desert Symposium has long featured the Adams Award for the best student talk or poster. This \$50 award is given at the annual meeting. It is funded by donations on the registration form.

Additionally, a new major Award for student research, the Robert Reynolds Student Research Award, has been established in honor of Bob Reynolds' decades of service. The award will be made annually to a student proposing research in and near the deserts of California, as funds permit and a qualified project is identified. The award will be for a maximum of \$1500.00. A short application that includes a research proposal is required to be submitted by February 15 of each year. An associated recommendation from a faculty mentor, on institutional letterhead, must be received by the same deadline. Proposals will be evaluated and a top candidate identified by March 15. The selected candidate will be encouraged to present a poster or talk about the proposal at the April Desert Symposium, at which time the general announcement of the winner will be made. Registration for the symposium will be waived for attendance by the winner. Students may contact David Lynch, Secretary DS Inc., at david@alumni.caltech.edu for the application form.

We hope to create a large enough fund to provide sustainable support for this award. Please show your gratitude for Bob's work by donating to the Award. Donors will be identified in the annual volume published by the Desert Symposium. Checks should be made out to: Desert Symposium Inc. Reynolds Award and mailed to: Bruce Bridenbecker, DSI Treasurer, 64451 Brae Burn Ave., Desert Hot Springs, CA 92240. For additional information, contact Bruce Bridenbecker at <u>bbridenbecker@cmccd.edu</u>, or Dave Miller at <u>dmiller@usgs.gov</u>.

Upcoming Meetings/Events

Inland Geological Society

In 2019, the Inland Geological Society will meet the first Tuesday or Wednesday of each month. The next meeting is scheduled for Wednesday, March 6th. For more information, visit our website at www.inlandgeo.org.

South Coast Geological Society



Monthly dinner meetings are typically the first Monday of each month. The February meeting has not been announced yet For more information, visit the association website at www.southcoastgeo.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. The February meeting has not been announced

yet. For more information, visit the association website at <u>www.aegsc.org/chapters/</u><u>inlandempire</u>.



AEG—Southern California Chapter

The AEG — Southern California Chapter typically meets the second Wednesday of each month at Victorio's Ristorante in North Hollywood. The February meeting

has not been announced yet. For more information, visit the association website at <u>www.aegsc.org</u>.

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, then select the Show Dates tab.

San Diego Association of Geologists



Meetings are usually held the third Wednesday evening of each month. The next meeting is scheduled for February 20, 2019. Vic Camp will be presenting on the Yellowstone Hotspot. For more information, visit the association website at 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. The February meeting has not been announced

yet. For more information, visit the association website at <u>www.labgs.org</u>.

Get Your IGS Coffee Mug!

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





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