

SAN DIEGO ASSOCIATION OF GEOLOGISTS

<http://www.sandiegogeologists.org>

SDAG MEETING ANNOUNCEMENT

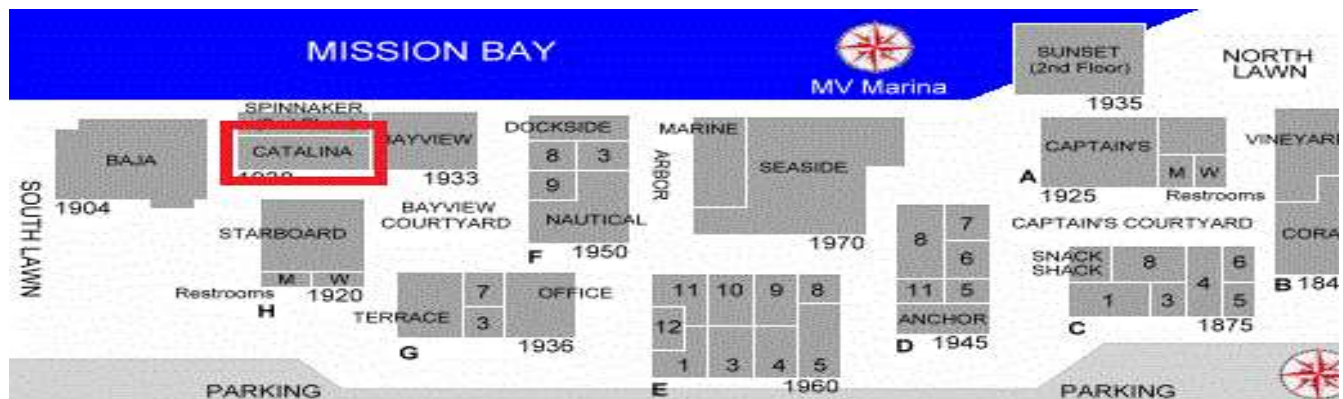
Wednesday, January 10, 2018 *2nd Wednesday*

Geologic and Climate Factors Affecting Fish Speciation, Lauca River

Presented by: **Barry Keller, Ph.D.**

- Where:** Marina Village – Catalina Room
1936 Quivira Way, San Diego, CA 92109 (See Map)
- When:** 5:30 pm – Social Hour
6:30 pm – Dinner
7:30 pm – Program
- Dinner:** Traditional Buffet – Roast Beef/Chicken/Vegetables
Cash Bar (Walawender Tavern)
- Cost:** \$25 Member, \$30 Non-Member, \$15 Students.
Add \$5 if you did not make a reservation.
- Reservations:** Make your reservation **online** at www.sandiegogeologists.org/meetings no later than noon, Monday, January 8th. Reservations cannot be guaranteed after Monday at noon, but are always preferred over walk-ins. **EARLY reservations well before the deadline are MUCH appreciated.**
- Directions:** FROM INTERSTATE 5: Take the SEA WORLD DRIVE exit. From SEA WORLD DRIVE, take WEST MISSION BAY DRIVE on your right. When you see the large green sign that says QUIVIRA ROAD, get in the farthest left of the two left turn lanes. Turn left, go one very short block and turn left again. Drive about one half mile and MARINA VILLAGE will be on your right.
- FROM INTERSTATE 8: Take the WEST MISSION BAY DRIVE exit to the right. You will be on INGRAHAM STREET for a short distance from which you will take the next exit marked WEST MISSION BAY DRIVE on your right. When you see the sign for QUIVIRA ROAD, get the far left turn lane. Turn left, go one very short block and turn left again. Drive about one half mile and MARINA VILLAGE will be on your right.

Map:



ABSTRACT

The South America Altiplano is a flat, internally drained area at 3500 m elevation and higher. In the late Pleistocene, large lakes filled much of the area, but have since dried, leaving isolated lakes and playas. Endemic fish species, particularly the killifish *Orestias* have been isolated during this drying and due to geologic influences, and have developed into new species. Lauca Rive drains the highest part of this area, with headwaters on the flank of Parinacota Volcano (6342 m). A catastrophic collapse of Parinacota at 8.8 Ka formed avalanche deposits that fragmented a previously existing lake into separated surface water bodies connected by groundwater, in which new species have developed.

SPEAKER BIO

Barry Keller was born in Mission Beach, where he now lives, but in between has lived in parts of greater Los Angeles, western Washington, Santa Barbara, France, and Chile. He has a BS from Caltech, MS from the University of Washington, and a PhD from UC Santa Barbara, the later two in marine geophysics. He has worked for the past few decades as an environmental geologist and hydrogeologist, including studies of sediment transport and coastal processes, mainly in California and Chile, where he was right on top of the 27 Feb 2010 M=8.8 “Offshore BioBio” earthquake (rated 6th largest in history by USGS). He has participated in various studies in the Atacama Desert, including a recent project in the Altiplano with limnologists regarding the survival and rapid speciation (evolution) of small indigenous fish.

UPCOMING MEETINGS

Meetings are usually held on the 3rd Wednesday of the month may change to accommodate the speaker and meeting place schedules. Check the SDAG website for updates

February 21, 2018	Chuck Houser
March 21, 2018	Pat Abbott
April 18, 2018	TBD

2018 SDAG EXECUTIVE COMMITTEE

<u>PRESIDENT:</u>	Chris Livesey; liveseychris@yahoo.com
<u>VICE PRESIDENT:</u>	Ken Haase; haase@geoconinc.com
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SDAG PRESIDENT'S CORNER

Greetings SDAG members!

A good new year to you all! I am happy to take you into 2018. I want to praise Rupert Adams for tending a great leadership for SDAG. Most notably he sent out well cohesive newsletters, led an international fieldtrip to Baja California, and finished his tenure by lining up great speakers for 2017. The upcoming officers, myself included, have a high bar to hurdle over.

To begin my role I am starting off the new year with fulfilling a project that took the most part of 2017...the "Julian-Banner Mining District: A Road to Gold" fieldtrip guidebook. I also intend to entertain you with a broad spectrum of discussions from the cosmos to the microbial process, from mass wasting to faulting. I hope to see all of you throughout 2018, beginning with the first meeting of the year on January 10th!

Sincerely,

Chris Livesey
SDAG President

ANNOUNCEMENTS

ASCE San Diego Geo-Institute March Meeting

The ASCE San Diego Geo-Institute chapter is hosting Holly Nichols for their March 13, 2018 meeting. She will be discussing the “Oroville Dam-Geology and Why it Matters.” More details will follow once the meeting has been finalized.

ONE STOP WONDER LA JOLLA

JANUARY 28, 2018 11:30 AM



Rob Hawk and company will be hosting an OSW on Sunday January 28, 2018. We will be meeting next to the Marine Room in La Jolla. With a low tide that day, it gives us great access to observe the sedimentology, engineered structures, tide pools, and Rose Canyon fault features. We will be meeting on the beach at 11:30 am. No dogs or alcohol are allowed on the beach. We will also have a post stop meeting place for those interested. Email

secretary@sandiegogeologists.org for questions.

A link to a Google Map Location is here: [Marine Room](#)

2018 SDAG Field Trip Preliminary Information

We are always looking ahead to next year's field trip. Ken Haase will be leading the expedition. Our area of focus will be the **San Andreas Fault, Rainbow Basin, and Calico Mountain area**. Our target dates are middle to late October of 2018.

We are looking for anyone who has knowledge or interest in those areas to assist in developing part of a program to lead the trip. Send in your ideas, papers, and opinions to Ken Haase at haase@geoconinc.com.

Geological Society of America Annual Meeting

www.geosociety.org

2018

Field Trip Proposal Deadline: December 1, 2017

Technical Session/Short Course Proposal Deadline: February 1, 2018

Abstract Deadline: August 14, 2018

Meeting: November 4th to 7th 2018, Indianapolis, Indiana

52nd AESE Annual Meeting – Niagara Falls, New York

September 26th to 29th 2018

Mark your calendars! The 52nd annual meeting of the Association of Earth Science Editors will take place in Niagara Falls, New York, September 26 to 29, 2018.

AESE's meetings generally consist of 2 days of technical sessions and a 1-day field trip. Please join us for a fun-filled and educational experience September 2018. Meeting headquarters will be the Conference and Event Center Niagara Falls. The meeting hotel will be the Sheraton at the Falls, on Third Street, where a block of rooms has been set aside for attendees, at a nightly rate of US\$139 (\$129 for room + \$10 facility fee).

Niagara Falls has been a prime tourist destination since the mid-19th century. People come from around the world to see just the falls, themselves. But there is so much more to explore on both the American and Canadian sides of the falls, from world class wineries, Niagara Falls State Park (providing close access to the American and Bridal Veil falls), Niagara Gorge hiking trails, and art galleries to the Schoellkopf Power Plant museum (providing easy access to the bottom of the gorge), Niagara rapids jet boat tours, Old Fort Niagara, Niagara-on-the-Lake and more....so remember to bring your passports if you wish to take in all that the area has to offer!

The meeting is open to anyone interested in earth science editing, publishing and outreach. The program is in the initial planning stage. Watch for meeting updates on AESE's web page www.aese.org. A closed Facebook group has been set up to share information <https://www.facebook.com/groups/123266368358780/>. For more information, please contact host chair, Marg Rutka, marg.rutka@ontario.ca, and technical program chair, Phil Farquharson philfarq@gmail.com.

Yonder Dynamics – UC San Diego Student Robotics Organization



Allison Kubo is the Science lead for Yonder Dynamics a university rover team at UC San Diego and an Earth Science student at Scripps. She reached out to SDAG looking for sponsors for their rover this year. Part of the competition is an analysis of the geologic settings of the area and soil retrieved by the rover which incorporates soil moisture, conductivity, and chemical testing.

She would be happy to partner with SDAG or anyone interested in the project.

Here are links to the team's website and sponsorship package:

[Yonder Dynamics](#)

[Yonder Dynamics Sponsorship Package](#)

SDAG Research Tool

SDAG RESEARCH TOOL - A comprehensive listing of all papers published by SDAG, whether as annual field trip guidebooks or special publications, is now available on our website. Entries are sorted by primary author, or chronologically by date of publication, from our first guidebook in 1972, up the San Luis Rey River in 2013, from Coast to Cactus in 2014, and finally over the edge to the Coyote Mountains in 2015. These can be accessed or downloaded as .pdf files. They are fully searchable in Adobe Reader or Acrobat, so if you are researching a topic, "tsunami" for example, you can search for that keyword. This listing will be updated as new books are published. Thanks to Greg Peterson and Hargis + Associates, Inc., for making this possible. See the links below:

http://www.sandiegoeologists.org/SDAG_Pubs_authors.pdf

http://www.sandiegoeologists.org/SDAG_Pubs_chronological.pdf

Interactive Fault Map for San Diego

As part of the update for the San Diego-Tijuana Earthquake Planning Scenario, Working Group No. 1's "Fault Map Subcommittee" has completed the first publicly available bi-national active and potentially active fault map. This interactive GIS map includes the first publicly available active and potentially fault map locations from the City of San Diego. The City of San Diego fault locations and activity of faults are based chiefly on interpretation of information contained in geologic reports by private consultants. The City of San Diego identifies active faults as Holocene ($\leq 11,000$ yr) and potentially active as Quaternary (up to 1.6my). City of San Diego fault investigations are ongoing that may require future revision of this map. This map is not a substitute for a site specific fault investigation. The map also includes an updated fault map layer from the State CGS. CGS suggests users defer to the City of San Diego fault data, where marked, for increased accuracy. The map also integrated the faults south of the border for a bi-national cross border view. You can expand the map legend on the left side to see the fault ages and sources for each layer that can be turned on or off for the map view. You can select from 1 of 12 base maps. You can click on the fault line on the map to see the meta-data source. This map includes the yellow dashed SURFACE FAULT RUPTURE location layer that will be used for the infrastructure, social, and economic impacts and emergency response for the update to the Earthquake Scenario. In addition, active and potentially active fault investigation locations from private companies are planned to be added to this map as a resource. This map is an on-going project and resource as our knowledge increases about local active and potentially active faults.

The link is available at: http://www.sandiegoengineers.org/Faults_map.html

I would like to thank Carolyn Glockhoff for her endless GIS work, Jim Quinn and the City for providing their data and time, Jerry Treiman with CGS for his time preparing the Surface Rupture and providing their new State fault data layer, and Luis Mendoza at CICESE for providing the faults south of the border. Please contact Diane Murbach (dianemurbach@gmail.com), Chair for the SD-TJ Earthquake Scenario Working Group #1 - Earth Science, if you have any questions, or see any errors on this new fault map.

Diane Murbach (619) 865-4333

Engineering Geologist, C.E.G.

www.murbachgeotech.com

Request for 2018 SDAG/SDGS Publication Sponsors

On behalf of the San Diego Geological Society, Inc. (SDGS), a public benefit 501(c)3 nonprofit educational corporation, we would like to request tax deductible Donations for our San Diego Association of Geologists (SDAG) group. The list of paid Sponsors and the forms to become a Sponsor are located on the SDAG web site at: <http://www.sandiegogeologists.org/Sponsors.html>.

Your donation will further the SDGS mission to promote geology and related fields in the greater San Diego region, operating through the San Diego Association of Geologists (SDAG), a committee of SDGS. To achieve our primary educational objective, we organize frequent field trips and maintain a program of monthly meetings featuring speakers on current geological topics. We also publish field trip guidebooks and other publications related to geology and natural history. We encourage scholarship and research by awarding scholarships from the elementary through graduate levels. With your \$100 "EMERALD" donation, your name/business will be listed as a sponsor on the SDAG web site (<http://www.sandiegogeologists.org/>) and in the monthly SDAG meeting newsletters. With your \$500 "RUBY" or \$1,000 or more "DIAMOND" level donation, your business card will also be included on the SDAG web site and in the monthly SDAG meeting newsletters. In addition, as a "\$1,000 or more DIAMOND" level donation you will be presented with a thank you plaque.

Should you have any questions regarding a Sponsorship, please contact our non-profit SDGS Secretary (Diane Murbach) at 619-865-4333.

Call for Articles

SDAG invites members to submit articles on their current research or an interesting project they are working on for publication in the monthly newsletter. The article should be no more than 1 page in length. Photos are welcomed; too. Please submit articles to the SDAG secretary via email.

PHOTO OF THE MONTH

If you would like to submit a photo, email them to secretary@sandiegogeologists.org and I will try and put them in the newsletter. Provide a short description of the picture.

Send in your pictures to be featured!



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Contact: **Rupert Adams, CEG**

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