

# SAN DIEGO ASSOCIATION OF GEOLOGISTS

[www.sandiegogeologists.org](http://www.sandiegogeologists.org)

## SDAG MEETING ANNOUNCEMENT

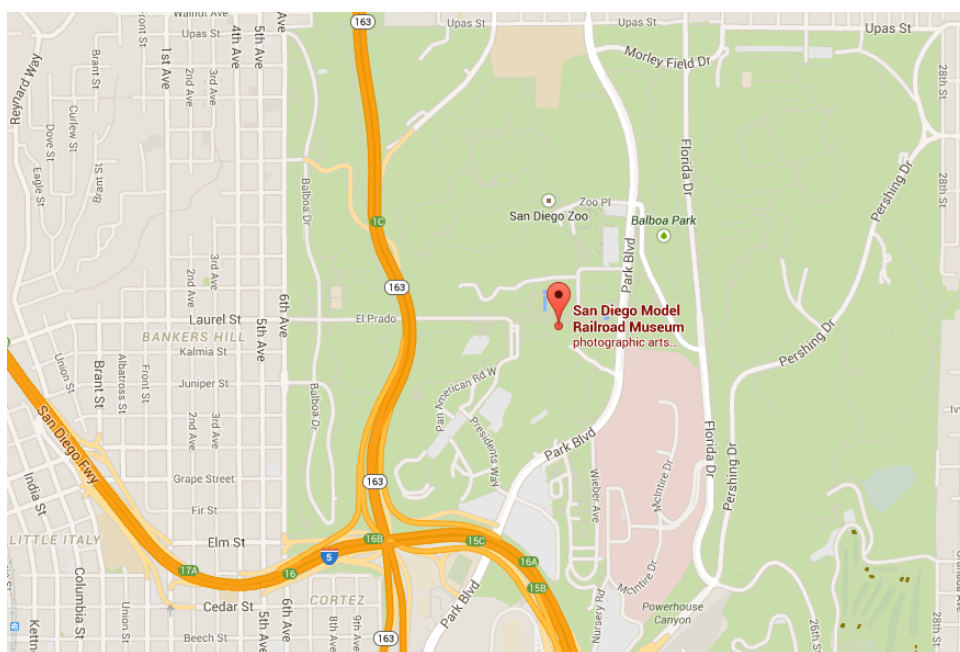
**WEDNESDAY, January 21, 2015**

### **The Impossible Landslide – Newly Revealed Documentation about the Carrizo Gorge’s 1932 Goat Canyon Disaster**

*Presented by:*

***Reena Deutsch, Ph.D.***

- Where:** San Diego Model Railroad Museum  
1649 El Prado, San Diego, 92101
- When:** 6:00 pm - Social Hour  
7:00 pm - Dinner  
8:00 pm - Program
- Dinner:** Mexican Buffet. Cash bar
- Cost:** \$35 per person, \$5 discount for members, STUDENTS: \$15. Add \$5 if you did not make a reservation.



**Reservations:** Make your reservation online at [www.sandiegogeologists.org](http://www.sandiegogeologists.org) no later than noon, Monday, January 19th. Reservations cannot be guaranteed after Monday; but are always preferred over walk ins. Reservations well before the deadline are MUCH appreciated.

## ABSTRACT

Our local railroad, the San Diego & Arizona Railway, was dubbed the “*Impossible Railroad*” because of the steep, rugged desert and mountain terrain through which it was built. During its more than 100 years existence, it has continued to face numerous challenges and misfortunes. After decades in storage, documentation leading up to one of the railroad’s most consequential catastrophes recently surfaced. Tonight’s speaker will detail five years of warnings and actions (and inaction) leading up to a huge landslide and subsequent tunnel collapse in the Anza-Borrego desert’s remote Carrizo Gorge. To put the line back in operation, the famed 185’ high, 633’ long curved, wooden bridge now known as the “Goat Canyon Trestle” was constructed. Dr. Deutsch will bring the remarkable events alive in a compelling slide show which will include the history and a map of previous slides, photographs taken before and immediately after the 1932 landslide, and engineering annotations.

## SPEAKER BIO

*Reena Deutsch, Ph.D.*

Dr. Deutsch, a UCSD medical researcher, became interested in the SD&A Railway after hiking to Anza-Borrego’s Goat Canyon Trestle in the 1990s. She began presenting slide shows on its colorful history in 2000 and authored a book, published in 2011, containing over 200 vintage photographs. She has served as a volunteer leader, guide, coordinator, and presenter of many outings, tours, and programs for non-profit organizations. She is currently a Board member for the Anza-Borrego Desert Natural History Association and the San Diego Model Railroad Museum. While not a geologist, she is eager to receive feedback from SDAG about what factors might have been involved to cause the fateful 1932 landslide. Her book, San Diego and Arizona Railway: The Impossible Railroad, will be available for purchase and signing after the meeting.

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## SDAG MEETING SCHEDULE

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

February 18, 2015	<b>Chuck Houser - Calcite</b>
March 18, 2015	Student Presentations
April 15, 2015	Student Presentations

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## **2015 SDAG EXECUTIVE COMMITTEE**

**PRESIDENT** – Jennifer Bauer Morton; [geologyjen@yahoo.com](mailto:geologyjen@yahoo.com)

**VICE PRESIDENT** – Randy Wagner; Ph: (760) 877-3490 [randallwagner@live.com](mailto:randallwagner@live.com)

**TREASURER** – Chris Livesey, [liveseychris@yahoo.com](mailto:liveseychris@yahoo.com)

**SECRETARY** –Rupert Adams, [rupert.hgi@sbcglobal.net](mailto:rupert.hgi@sbcglobal.net)

**PUBLICATIONS** – Lowell Lindsay; *Sunbelt Publications*; Ph: (619) 258-4911, x111; fax:(619) 258-4916; [llindsay@sunbeltpub.com](mailto:llindsay@sunbeltpub.com)

**WEBMASTER** – Carolyn Glockhoff; *Caro-Lion Enterprises*, Ph: (858) 549-3396; [carolyn@caro-lion.com](mailto:carolyn@caro-lion.com)

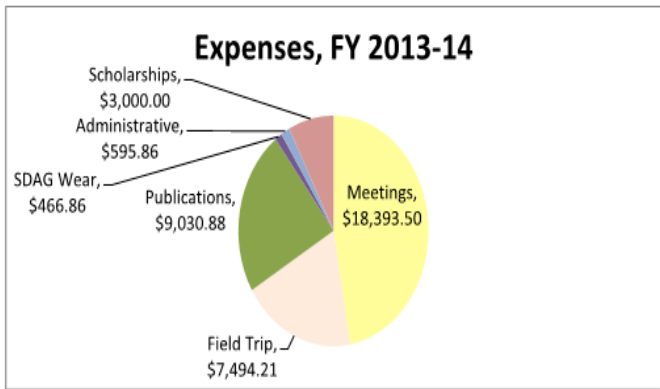
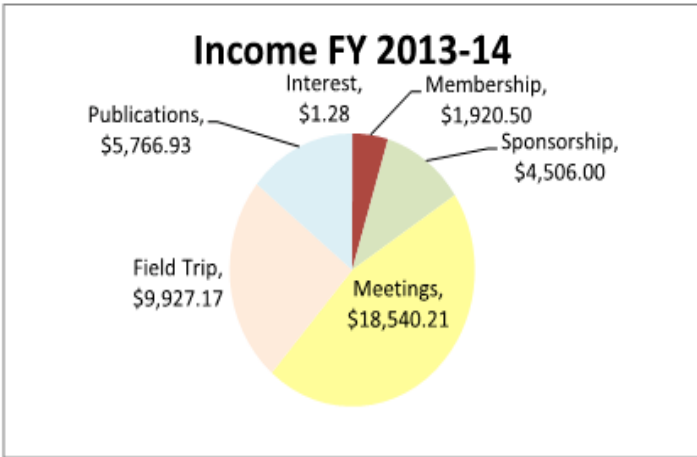
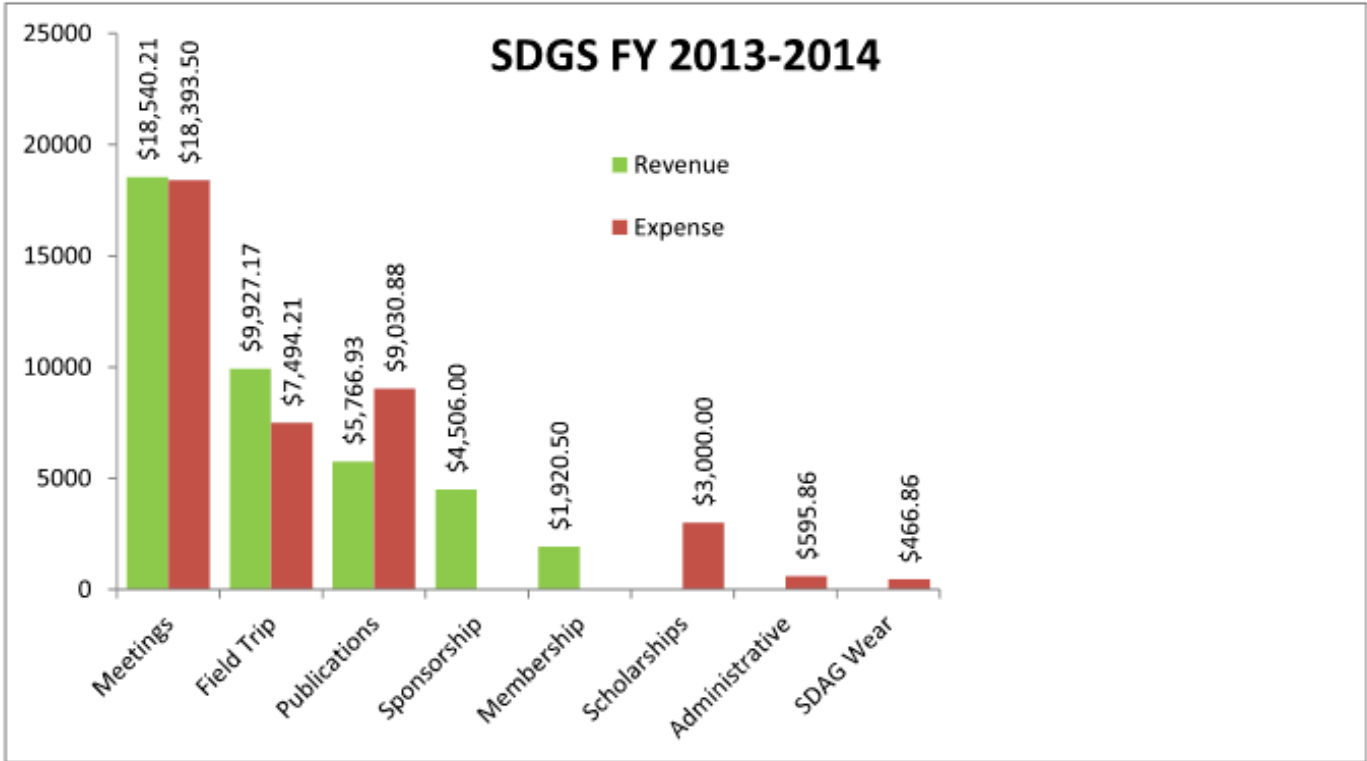
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## **SDGS ANNUAL REPORT**

The most recent San Diego Geological Society Fiscal Year (FY) ran from July 1, 2013 to June 30, 2014. Our largest program is SDAG, which operates monthly meetings, and annual weekend field trip, and short “one-stop wonder” field trips. We also keep a backlist of previously published field trip guidebooks and other books in print, and provide student scholarships to community college, undergraduates, and graduate students who show promise as geological researchers. Our notable operational achievements this year were:

- 12 monthly SDAG dinner meetings each featuring a technical lecture
- A field trip to the San Luis Rey River watershed, led by Brian Olson
- A OSW to the Rose Canyon fault at La Jolla Shores
- \$3,000 of scholarships to three worthy students
- Publication of two new field trip guidebooks: San Luis Rey on Display and Palms to Pines

Our corporate treasury has been in good shape in no small part because of the careful diligence of our corporate treasurer. Our total year revenues were \$40,661 and total expenses were \$34,919. Our total cash assets this year ended with \$16,974.

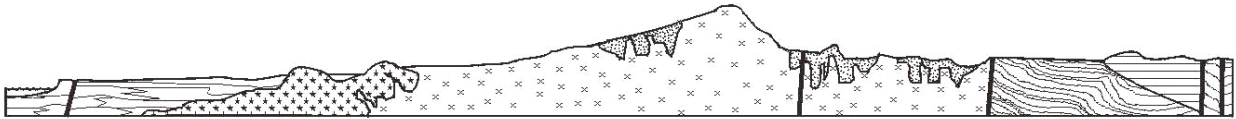


Dave Bloom  
SDGS president

## 2015 SDAG MEMBERSHIP

It's that time of the year to renew your membership. The regular membership is \$25 (only \$5 for students) while the sponsor membership starts at \$100. Both forms are included on the following pages or they can be found on the home page of the SDAG website. [Or copies will be available at the December meeting so you can fill out the fill and pay your dues at the same time.](#)





# SAN DIEGO ASSOCIATION OF GEOLOGISTS

[www.sandiegogeologists.org](http://www.sandiegogeologists.org)

## 2015 MEMBERSHIP FORM

NAME : \_\_\_\_\_ DATE: \_\_\_\_\_

Please type or print clearly.

Home Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Work Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

*Please include company, university or other affiliation*

Home E-mail Address: \_\_\_\_\_

Work E-mail Address: \_\_\_\_\_

**NOTE :** Your membership dues include delivery of the monthly SDAG newsletter and announcements to the email addresses given .

Phone: Home: \_\_\_\_\_ Work: \_\_\_\_\_ Cell: \_\_\_\_\_

Website: \_\_\_\_\_

Are you willing to serve as an **officer** ? \_\_\_\_\_ Are you willing to volunteer as a **guest speaker** ? \_\_\_\_\_

Field(s) of Interest: \_\_\_\_\_

Dues: \_\_\_\_\_ Student Member (email delivery only) \$ 5.00

(check choice) \_\_\_\_\_ Regular Member (email delivery only) \$ 25.00

\_\_\_\_\_ Donation Student Scholarships \$ \_\_\_\_\_

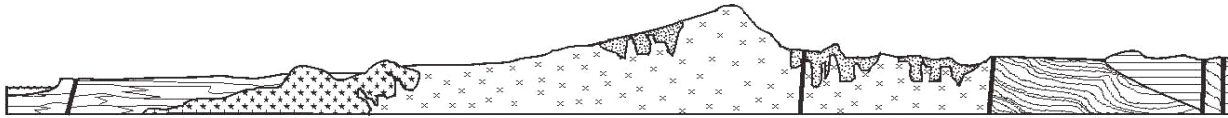
New/Returning Member  Continuing Member

Please enclose a check payable to SDAG, and mail to:

San Diego Association of Geologists (SDAG)

3130 N Evergreen Street

San Diego, CA 921 10



# SAN DIEGO ASSOCIATION OF GEOLOGISTS

## 2015 SPONSORSHIP FORM

NAME: \_\_\_\_\_ DATE: \_\_\_\_\_  
(as you would like it to appear in Newsletter, Website, and Guidebook)

Please type or print clearly, and check  preferred mailing address below.

Residential Address: \_\_\_\_\_

Office/School Address: \_\_\_\_\_

Website: \_\_\_\_\_

Home E-mail Address: \_\_\_\_\_

Work E-mail Address: \_\_\_\_\_

*NOTE: Your Sponsorship includes a complimentary SDAG membership, and delivery of the monthly SDAG newsletter and announcements to the email addresses given.*

Phone: Home: \_\_\_\_\_ Work: \_\_\_\_\_ Cell: \_\_\_\_\_

### Donation Level and Consideration:

**EMERALD \$100.00** (In addition to monthly recognition for your contribution, you are entitled to a free Internet "link" from SDAG Website. We also list all Sponsors in any publications printed this year)

**RUBY \$500.00** (In addition to the above, you are entitled to an image of your business card in the monthly newsletter and SDAG Website)

**DIAMOND \$1,000.00** (In addition to the above, you will receive a commemorative plaque in recognition for your most generous support of the organization)

New Member / Donor  Continuing Member  Change of mailing address:

Are you interested to serve as an officer? \_\_\_\_\_ Willing to volunteer as a guest speaker? \_\_\_\_\_

Please make check payable to San Diego Geological Society, Inc., a 501(c)3 public benefit nonprofit educational corporation (in order to claim a tax deduction), and mail to:

San Diego Geological Society, Inc.  
3130 North Evergreen St.  
San Diego, California 92110

**Thank you!**

*Donations may also be made at monthly meetings.*

*Revised 11/18/2014*

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## SDAG PRESIDENT'S CORNER

Greetings SDAG Members!

Wow, another year has flown by! I would like to start out with a huge Thank You to our outgoing president, Brian Olson. What a wonderful job he has done serving SDAG for the past 4 years! We are all grateful for the time he has dedicated to this organization. I am particularly grateful to him for guiding me every step of the way through the various officer positions; Brian has always been there to provide helpful information as I've moved into each new role.

I would like to also thank all of our new SDAG officers for their willingness to volunteer! Randy is skipping a year and has agreed to take the fast-track to Vice-Presidency. We are all looking forward to his upcoming field trip to the Coyote Mountains, the planning of which is already well underway. Welcome to our new Treasurer, Chris Livesey and our new Secretary, Rupert Adams. We are so happy to have them on board.

December's meeting proved to be another great presentation from Dr. Tom Deméré – his 34<sup>th</sup>! It is always fascinating to hear about the latest research being conducted by the San Diego Natural History Museum. How cute were those Sespias?!

This year a record number of scholarships were awarded – we had five well-deserving students who were recognized at our December meeting. With so many students, we will split our Student Presentations into two meetings this year. Thank you to Anne Sturz for all the work she has put into the student scholarships.

I am very much looking forward to serving as President this year (I'm feeling like I can take a deep breath with the field trip behind me!) I hope that I can make this a great year for SDAG, and I welcome any feedback, input, or suggestions from our membership. Please email me at [geologyjen@yahoo.com](mailto:geologyjen@yahoo.com).

Lastly, I wish you all a very Happy New Year, and hope everyone has a joyful and prosperous 2015!

**Jennifer Bauer Morton, PG**  
**2015 SDAG President**



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# ANNOUNCEMENTS

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## CALL FOR PAPERS - SDAG 2015 FIELD TRIP

**“Western Salton Trough Regional Tectonics, Coyote Mountains and Vicinity”**

**Late October or Early November, 2015  
(Most Likely November 6-8, 2015)**

On this field trip we will explore the complex geologic history of the western Salton Trough as expressed in the Coyote Mountains north of Ocotillo. Paleozoic miogeoclinal metamorphic rocks, coarse-grained Mesozoic intrusive rocks, and Cenozoic sedimentary rocks and fanglomerates have been deformed by major faulting. Complex structure challenges interpretation. We seek to examine revealing outcrops that help to illustrate the stratigraphy, structure, and regional geology in this area. We will also consider the mineral potential, tectonics of the region, and resulting landforms.

SDAG seeks new manuscripts based on original work relating to regional geology and tectonics, from the western Salton Trough in San Diego and Imperial counties, and Baja California. We also invite authors to submit articles on the history of the region as it relates to geology and geomorphology.

**Deadline for Abstracts: Friday, May 29, 2015**

Please submit the following information along with abstracts:

- Title
- Author(s) and affiliation
- Address, email, and telephone numbers for the author(s)

Submit abstract by e-mail to Randy Wagner: [randallwagner@live.com](mailto:randallwagner@live.com) (760) 877-3490

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## 2014 Outstanding Student Award Winners

Congratulations to our 2014 SDAG Student Award Recipients! The five \$1,000 Outstanding Student Awards were presented at the December SDAG meeting to the following students:

**Xiomara Rosenblatt-Dailey, Southwestern College**

Through an internship at the San Diego Natural History Museum, Ms Rosenblatt is working on the identification of Eocene Chondrichthyans.

**Clifford Hoang, undergraduate, University of California San Diego**

Mr. Hoang is working on small-scale sea surface salinity variability in the Middle Atlantic Bight.

**Tyler Barnes, undergraduate, University of San Diego**

Mr. Barnes is monitoring turbidity in bays with coral reefs, St. John, US Virgin Islands

**Bridget Borce, undergraduate, San Diego State University**

Ms. Borce is working on the development of the Florissant Fossil Beds National Monument Geologic Guide in Teller County, Colorado.

**Ashley Heath, graduate student, San Diego State University**

Ms. Heath is working on effects of illuviation on the petrology and chemistry of tonalitic saprock.

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**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.

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**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, and from Coast to Cactus in 2014. 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_authors.pdf)

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**THE GEOLOGICAL SOCIETY  
OF AMERICA®**

The 2015 GSA Annual Meeting will be November 1 - 4, 2015  
in Baltimore, MD, at the Baltimore Convention Center

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## Geology Books for Sale

A local geologist has a large collection of historic books for sale on coastal geology, sedimentology, marine geology, and oceanography, many of which are out of print. If interested, please email Gerry Kuhn at [gerrykuhn@gmail.com](mailto:gerrykuhn@gmail.com).

Here is a preliminary list of the publications for sale:

- 1858.** Mathew F. Maury. The Physical Geography of the Sea. Harper and Brothers, Publishers., New York, 570pp. w/plates (Good).
- 1880.** Dana, J.D., Manual of Geology: Treating of the Principles of the Science, with special reference to American Geological History. 3rd edition, Ivison, Blakeman, Taylor and Co., Publishers, Trubner and Co. London. (Good)
- 1886.** Winchell, A. Walks and Talks in the Geological Field. Chautauqua Press, NY., 329pp. (Good).
- 1890.** Charles Darwin. On the Structure and Distribution of Coral reefs; also Geological Observations on the Volcanic Islands and parts of South America; Ward, Lock and Co., London., 549pp. (The Minerva Library of Famous Book, ed. G.T.Bettany). (Fair to Good).
- 1891.** Le Conte,J., Elements of Geology., Appleton and Co. NY., 640pp. (Fair).
- 1898.** Green, J.R., A Short History of the English People (with maps and tables), New Edition, Revised., Harper and Brothers, Publishers., New York and London, 871pp. (Fair to Good).
- 1903.** LeConte, J. Elements of Geology. 5th edition., D. Appleton and Company., 667pp. (Fair).
- 1904.** Chamberlain, T.C., and Salisbury, R.D., Geology. Vol. I-Geologic Processes and Their results., Holt and Co., 654pp. (Fair to Poor).
- 1905.** Fairbanks, H.W., Practical Physiography (with 900 colored maps and three hundred ninety four illustrations, Allyn and Bacon, Publishers, Boston and Chicago., 542pp.(Good to Very Good).
- 1907.** Salisbury, R.D., Physiography., Henry Holt and Company, NY., 770pp.(Good).
- 1907.** Chamberlain, R.T., and Salisbury, R. D., Geology., Vol. II Earth History., 2nd Ed., Revised., Holt and Co., 692pp. (Fair to Poor).
- 1908.** Davis, W.,M., Practical Exercises in Physical Geography. Ginn and Company, Boston, MA. 148pp. (Good).
- 1909.** Chamberlain, T.C. and Salisbury, R.D., A College Textbook of Geology., Henry Holt and Company, New York, NY., 978pp. (Fair).
- 1915.** Piersson, L.V., and Schuchert, C. A Text-Book of Geology., Wiley & Sons. 1051pp.
- 1920.** Piersson, L.V., and Schuchert., C.. A Textbook of Geology: Part One Physical Geology, 2nd edition-revised, Wiley and Sons Inc., 471pp.(Fair to Good).
- 1924.** Alfred Wegener. The Origin of Continents and Oceans. Translated from the 3rd German Edition, with introduction by J. W. Evans, E.P.H. Dutton and Company, Publishers. Great Britain, 212pp. (Fair).
- 1925.** Johnson,D. The New England-Acadian Shoreline. Wiley and sons., NY.,608pp. (Good).
- 1926.** Daly, R.A.. Our Mobile earth. Charles Scribner's Sons, NY., 342pp.
- 1928.** W.A. J.M. Van Waterschoot Van Der Graucht et al. A Symposium on the Origin and Movement of Land Masses both Inter-Continental and Intra-Continental, as Proposed by Alfred Wegener., Amer. Assn. Petroleum Geologists, Tulsa, OK., 240pp. (Good).
- 1929.** Cleland, H.F.. Geology: Physical and Historical. Amer. Book Company, NY., 718pp. (Good)
- 1929.** Gieke. A.,(Sir). Text-Book of Geology. 3rd edition., P.F. Collier and Sons., NY., 503pp. (Fair).
- 1929.** Pirsson, L.V., and Schuchert, C., A Textbook of Geology, Wiley and Sons., 3rd Ed., 488pp. (Fair to Good).
- 1930.** Tarr, R.S., and Martin, L., College Physiography. MacMillan Company., NY., 837pp. (Good).
- 1931.** Hobbs, W.H., Earth Features and Their Meaning: Geology.,2nd. Ed., MacMillan Co., N.Y., 517pp. (Good).
- 1931.** Fenneman, N.M.. Physiography of Western United States, 1st edition, 2nd impression. McGraw-Hill Book, Company, Inc., NY., 534pp. (Good)

- 1931.** Longwell, C.W. and Schuchert, C., *Foundations of Geology.*, Wiley and Sons., (Physical Geology Section, 256pp.); (Historical Section, 2nd edition, rewritten, 328pp.). (Fair to Good).
- 1932.** Scott, W.B., *An Introduction to Geology.*, Vol. I, Physical Geology, 3rd Ed., MacMillan Co., N.Y., 604p.
- 1932.** Trask, P.D., *Origin and Environment of source Sediments of Petroleum*, Amer. Pet. Instiutut., 309 (Poor).
- 1938.** Johnson, D.W.. *Shore Processes and Shoreline Development.*, Wiley & Sons., 1st ed., 4th printing, 584pp. (Good).
- 1938.** Fenneman, N.M., *Physiography of Eastern United States.*, 1st edition., McGraw-Hill Book Company, Inc., 714pp. (Good).
- 1939.** Lobeck, A.K., *Geomorphology.* 1st edition., McGraw-Hill Publishing Company, Inc., NY., 731pp. (Good).
- 1939.** *A Textbook of Geomorphology.* D. Van Nostrand Company, Ltd. 565pp.
- 1947.** Jaggat, T.A., *Origin and Development of Craters.*, Geol. Soc. Of Amer. Memoir 21., 508pp. (Very Good).
- 1948.** Larsen, E.S., Jr., *Batholith and Associated Rocks of Corona, Elsinore, and San Luis Rey Quadrangles, Southern California.*, Geol. Soc. Of Amer. Memoir 29., 182pp. (Good).
- 1957.** Hedgepeth, J.W., Editor. *Treatise on Marine Ecology and Paleoecology.*, Vol. #1-Ecology. Geol. Soc. Of Amer. Memoir 67., 1296pp., (Very Good).
- 1957.** Ladd, H.S., Editor., *Treatise on Marine Ecology and Paleoecology.*, Vol#2 -Paleoecology. Geol. Soc. Of Amer. Memoir 67., 1077pp. (Very Good).
- 1951.** Phleger and Parker. *Ecology of Foraminifer, Northwest Gulf of Mexico.*, Geol. Soc. Of Amer. Memoir 46, 64pp. with plates. (Good).
- 1951.** Kay, M. *North American Geosynclines.*, Geol. Soc. Of Amer. Memoir 48, 143pp. ((Very Good).
- 1958.** Cooper, W. S. *Coastal Sand Dunes of Oregon and Washington.*, Memoir 72, 169pp. (Very Good).
- 1956.** Hamilton, E. L., *Sunken Islands of the Mid-Pacific Mountains*, Geol. Soc. Of Amer. Memoir 64, 96pp., with Plates. (Very Good).
- 1971.** Khudoley, K.M., and Meyerhoff, A.A., *Paleogeography and Geological History of Greater Antilles.*, Geol. Soc. Of Amer. Memoir 129, 199pp. (Very Good)
- 1977.** Enos, P., and Perkins, R.D., *Quaternary Sedimentation in South Florida.*, Geol. Soc. Of Amer. Memoir 147. (Very Good).
- 1981.** Kulm, L.D., et. al., Eds. *Nasca Plate: Crustal Formation and Andean Convergence.*, Geol. Soc. Of Amer. Memoir 154. 824pp. (Very Good)

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## **Geology Job Opportunities/Requests**

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## **REQUEST for 2015 SDAG/SDGS and 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.

The following are our 2013-2014 Sponsors: