

# SDAG

Meeting Announcement

## SDAG & SCGS JOINT MEETING



**MONDAY JUNE 6th**

**6 PM – HAPPY HOUR**  
**7 PM – DINNER**  
**8 PM – PRESENTATION**

\$45/member  
\$50/non-member  
\$30/students/professors

**RESERVE [HERE](#)**

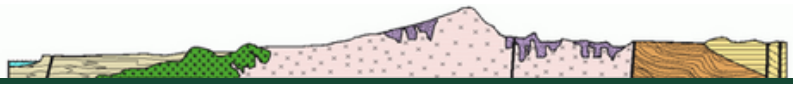
- DEADLINE: FRI JUN 3rd
- 12 PM
- IMPORTANT- for this meeting there are no walk-ins. Please reserve ASAP.

**LOCATION**

El Adobe de Capistrano  
31891 Camino Capistrano  
San Juan Capistrano, CA. 92675

785 Pacific Surfliner	DEPARTS 4:01p	1h 34m	ARRIVES 5:35p
588 Pacific Surfliner	DEPARTS 8:26p	1h 38m	ARRIVES 10:04p <small>Top Details</small>
594 Pacific Surfliner	DEPARTS 11:36p	1h 38m	ARRIVES 1:14a <small>Tue, Jun 7 Details</small>

**AMTRACK**



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### **TITLE:**

2018-2020: Two Years, Eight Storms, 320+ landslides, and an Earthquake (What does it mean, and what do we do now?)

### **SPEAKER:** Rick Wooten



Richard (Rick) Wooten has over 40 years of experience in applied geology in the Cascade Mountains of Washington State and applied geologic research in the Piedmont and Blue Ridge Mountains of North Carolina. He earned his BS and MS degrees in geology at the University of Georgia in 1973 and 1980. Rick recently retired from the North Carolina Geological Survey where he was the Senior Geologist for Geohazards and Engineering Geology from 1990 to 2021. His previous work includes mapping geologic resources and conditions for land-use planning, landslide investigations, and applied geotechnical geology

for the USDA Forest Service on the Gifford Pinchot National Forest in Washington State from 1980 to 1990. His work with the North Carolina Geological Survey includes the scientific regulatory review and field investigations for a low-level radioactive waste disposal project and bedrock geologic mapping in the Piedmont and Blue Ridge Mountains. Since 2003, his main focus has been on landslide hazard mapping and research and responding to landslide events North Carolina Blue Ridge. He has a special interest in the relationships of ductile and brittle bedrock structures with geomorphology and landslides processes and communicating landslide hazards information with stakeholders.

**LINK - [AEG](#)**

**LINK - [Geological Society of America](#)**



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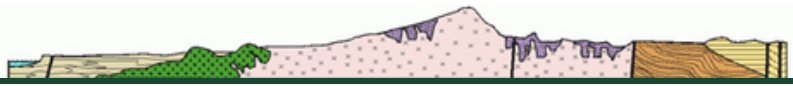
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### **ABSTRACT:**

Rick's presentation will highlight topics he will cover during in his Jahns' lecture series. These themes include interconnecting geoscience, weather patterns, and history in landslide hazard studies; using drones and lidar in emergency landslide responses and hazard mapping; building multi-disciplinary partnerships in applied geology and research; and, communicating with stakeholders about landslide hazards.

He will explore these topics in the context of the North Carolina Geological Survey's landslide response and landslide mapping efforts between 2018 and 2020. A two-year period of record above-normal rainfall that began in 2018 resulted in a steady increase in landslide frequency over the preceding four years throughout the Blue Ridge Mountains of western North Carolina. Eight extreme rainfall events related to low pressure systems, convective storms, and tropical cyclones triggered over 320 debris flows and debris slides, and led to the reactivation of large, slow-moving landslides that threaten property and regional infrastructure. This interval of increased landslide activity began abruptly on May 18, 2018, when a rapidly developing convective storm triggered at least 240 debris flows and debris slides that resulted in a fatality, destroyed homes, and severely damaged infrastructure. Landslides from subtropical cyclone Alberto and tropical cyclone Florence in 2018 will be discussed, as well as post-wildfire debris triggered by the August 24, 2019 convective storm that resulted in over \$1 million in direct losses. The August 9, 2020 Mw 5.1 earthquake near Sparta, NC caused over \$15 million in damage to buildings and infrastructure. Ongoing investigations identified the first modern fault rupture attributed to recent seismicity in the Southeastern U.S. Ground surface ruptures along the ESE-trending Little River Fault parallel other linear topographic features crossing the southern Blue Ridge in areas of concentrated landslide activity.

The confluence of new technology, the passage of National Landslide Preparedness Act and the ongoing impacts of extreme weather patterns linked to climate change present a compelling opportunity for the geoscience community to press forward in a coordinated effort to reduce losses from landslides. An essential part of meeting this challenge is building partnerships within and outside of the scientific community to increase public awareness of geologic hazards.



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### **CALL FOR ARTICLES**

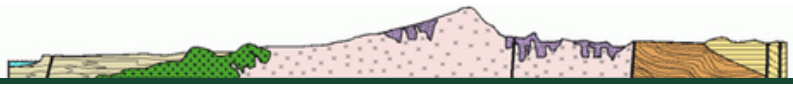
SDAG invites members to submit articles on their current research or an interesting project they are working on for publication in the monthly newsletter. The article should be no more than 1 page in length. Photos are welcomed; too. Please submit articles to the SDAG secretary via email.

### **SDAG RESEARCH TOOL**

A comprehensive listing of all papers published by SDAG, whether as annual field trip guidebooks or special publications, is available on our website. Entries are sorted by primary author, or chronologically by date of publication, starting with our first guidebook in 1972, out to Calico and the Mojave Desert in 2018, and finally up to the Temecula wine country for a return visit in 2020. 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, "oikocryst" for example, you can search for that keyword. This listing will be updated as new books are published. Thanks to Greg Cranham and Hargis + Associates, Inc., for making this possible. See the links below:

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# SDAG 50<sup>TH</sup>

December Newsletter *Anniversary!*

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