

PLATES 2022 (ISSUE No. 14)
GSA CORDILLERAN SECTION NEWSLETTER

Thank you to GSA Cordilleran Section members for their continued support of the Section. The Cordilleran Section is the largest geographic section of GSA and membership has remained strong, even through the pandemic. Membership dues support student travel to meetings, educational activities and provides cash awards for student presentations. Please read on to find out what is happening in the Section!

Message from the Chair

It is a pleasure to serve as Chair of the Cordilleran Section, which has supported my students and me in participating in Cordilleran Section meetings since I started as a faculty member at California State University, Chico. The diversity of geology and meeting locations of the Cordilleran Section has offered thousands of students the opportunity to share their research and learn about new geologic environments of western Mexico, US, and Canada. The Cordilleran Section offers a vehicle for active communication of ideas and ongoing research across many geologic terrains of western North America.

Travel and safety protocols of the last couple of years have led to changes in ways we teach and do research, as well as the ways we connected together during the 2021 virtual Section meeting, hosted by the University of Nevada, Reno. Participation was fantastic (see page 2) and we look forward to a dynamic, engaging meeting at UNLV in Las Vegas, NV in March 2022, in partnership with the Rocky Mountain Section. Learn more about the 2022 Joint Cordilleran-Rocky Mountain Section meeting on and for planned future meetings on page 4, and read on to learn about ways you can be involved in the Cordilleran Section of GSA!

- Rachel Teasdale

Section Officers & Nominations

We seek nominations for the next Cordilleran Section board Vice-Chair officer position. Please consider nominating yourself or another member to join the Section leadership.

Officers participate in the business of the Cordilleran Section, including support of the Cordilleran Section meeting organizers, selecting locations/hosts for upcoming meetings and additional business of the Section as needed.

Officers serve for three years, once as Vice-Chair, then as Chair and Past-Chair. Officers generally meet twice each year, once at the Section meeting and again at the GSA Annual meeting.

To nominate yourself or another member, please send a short statement describing relevant qualifications, interest and contact information of the nominee to Scott Bennett (sekbennett@usgs.gov) by **February 1, 2022**. Please find more information about the call for nominations in an email circulated Jan 12, 2022. We look forward to your participation!

Current Board Officers:

Chair: Rachel Teasdale (rteasdale@csuchico.edu)

Vice-Chair: Scott Bennett: (sekbennett@usgs.gov)

Secretary-Treasurer: Calvin Barnes
(cal.barnes@ttu.edu)

Past-Chair: Robinson Cecil: (robinson.cecil@csun.edu)

The Cordilleran Section is grateful to Cal Barnes, who has agreed to serve another term as Secretary-Treasurer. Cal's dedication and long-term service to the Section, along with all of the institutional knowledge he brings, is a huge benefit to the Section!



Cordilleran Section News

Membership in the Cordilleran Section remains strong, with 5608 members as of December, 2021. Cordilleran Section members are active within the section and also a large constituency at national meetings, including 964 at the 2021 GSA Annual Meeting in Portland, OR.

Please find more information about the Cordilleran Section on our Website: <https://www.geosociety.org/gsa/about/section/gsa/Sections/cd/home.aspx>

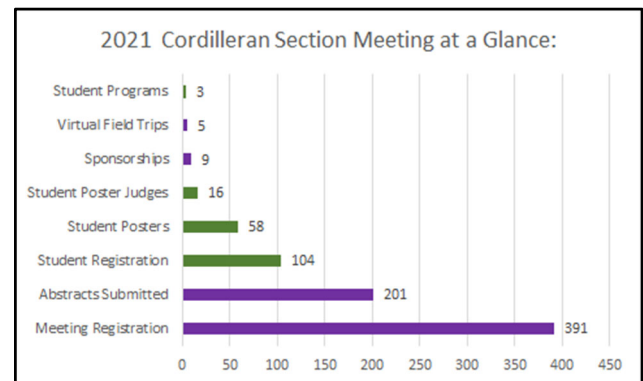
Diversity: The Cordilleran Section Board and our meeting organizers share GSA's dedication to diversity, which includes that we are "committed to making Earth literacy available to all people and to having geoscience professionals, including its membership, reflect the diversity of society. Diversity in the geosciences can be achieved through leadership and membership that models, advocates for, and practices equity and inclusion." Read GSAs complete [Position Statement on Diversity in the Geosciences](#).



GSA Cares: The Cordilleran Section is proud to have contributed to the GSA CARES fund, in addition to support from GSA members. The GSA CARES fund supported students with pandemic-related hardships affecting their education or career development.

2021 Cordilleran Section 117th Meeting Report

After a disappointing cancellation of the 2020 Pasadena Section meeting, the 2021 Cordilleran Section meeting was a hugely successful meeting in May. This meeting was scheduled to be held in Reno, NV, but due to health and safety risks associated with COVID, it was entirely virtual. Organized by University of Nevada, Reno (UNR), meeting participation was strong, with numerous student opportunities.



The meeting was supported by generous sponsorships from the Department of Geological Sciences and Engineering at the University of Nevada-Reno, Mackay School, Desert Research Institute, Nevada Bureau of Mines and Geology, Center for Transformative Environmental Monitoring Programs (Oregon State Univ.), W.M. Keck Earth Science and Mineral Engineering Museum, Grindstone Laboratory, Merrily Graham, and Prof. John N. Louie.

On behalf of the Cordilleran Section board officers, members and meeting attendees, we extend an enthusiastic thanks to the dedicated organizing committee who started planning for an in-person meeting, then gracefully transitioned to the virtual meeting format:

Meeting Chair: Stacia Gordon, UNR

Technical Session: Wendy Calvin, Kait Keegan, Philipp Ruprecht, Mattieu Harlaux, UNR

Field Trips: Basil Tikoff, Univ Wisconsin-Madison; David Greene, Andy Barth & Jim Faulds, UNR

Short Courses: Rich Koehler, UNR

Student Volunteers: Wenrong Cao & Mike Darin, UNR

Exhibits: Lisa Stillings, USGS

Sponsorship: John Louie, UNR

In addition to excellent science presentations, the 2021 meeting resulted in approximately \$10,500 in net proceeds, which financially benefits all programs of the Cordilleran Section. Our financial health allowed the Section to support registration fees for students who presented at the virtual Section meeting and travel support for 26 students to attend the 2021 GSA Connects Annual Meeting in Portland, for a total of \$9,950 awarded to students. Cordilleran Section funds were also used for awards to outstanding student posters, as noted below:

**2021 Cordilleran Section
Student Research Awardees**

Outstanding Graduate Student Posters:

Juliet Ryan-Davis, Cal Tech, Mixed Mode Deformation in the Transpressional Grant-Parker Shear Zone, Eastern Sierra Nevada, CA (Outstanding Graduate Award)

Mary Mass, Portland State Univ., Compositions of Dikes from the Northern and Southern Portions of the Chief Joseph Dike Swarm

Vanessa Swenton, Portland State Univ., Assessing Space and Time Trends in Miocene Co-CRBG Rhyolites of the High Lava Plains Trend of Eastern Oregon

Undergraduate Student Posters:

Nina Bowness, Trinity Univ., Potential Effects of Orographic Precipitation on Rates of Erosion and Isostatic Uplift of the Wasatch Fault Zone Footwall (Outstanding Undergraduate Award)

Javaria Aziz, San Diego State Univ., Physical Volcanology of Fragmented Volcanic Rocks in

the Miocene Jacumba/Alverson Volcanics, Devil's Canyon, California

Christina Scott, CSU Sacramento, Geochemistry and Geochronology of a Precambrian Plagiogranite in the Sierra City Melange, Northern Sierra Nevada, California

First authors of the outstanding undergraduate and graduate posters also received free registration from GSA to attend the Annual Meeting and present their posters.

A warm thank you goes to everyone who helped judge student posters at the 2021 meeting. Your work and good humor in judging electronic posters is greatly appreciated. We often hear from students and former students what it meant to them to receive Cordilleran Section awards that honor them for their hard work on their research and presentations.

Thanks to the ongoing commitment and enthusiasm of UNR, we look forward to an in-person meeting in Reno, NV from May 17-19, 2023.



2020 Section Meeting, Pasadena, CA

We also are deeply appreciative of organizers of the 2020 Cordilleran Section meeting, which was fully organized to have been held in May 2020 in Pasadena, CA and hosted by California State University, Northridge (CSUN). Because of concerns for health and safety, that meeting was

canceled, but we are grateful to the following organizers who did the work, but were not able to celebrate with us in the thrill of a well-organized meeting:

Meeting Chair: Doug Yule, CSUN

Technical Program: Robinson Cecil, CSUN

Field Trips: Richard Heermance & Joshua Schwartz, CSUN

Short Courses: Kathie Marsaglia, CSUN

Student Volunteers & Exhibits: Elizabeth Nagy, Pasadena Community College

Sponsorship: Doug Yule, CSUN

2022 Section Meeting

15-17 March, UNLV, Las Vegas, NV

The [2022 Cordilleran Section meeting](#) will be a joint meeting with the Rocky Mountain Section, held at University of Nevada, Las Vegas (UNLV) and hosted by UNLV and Utah State University (USU). This *Rendezvous at the Geologic Crossroads* will include field trips exploring the Cordillera, Great Basin and Colorado Plateau. Five short courses offer opportunities to learn and hone research and analytical skills. We have received 360 abstracts and the early registration deadline is Feb 7, 2022.

Special thanks go to meeting organizers:

Meeting Co-Chairs: Michael Wells, UNLV & Alexis Ault, USU

Technical Program: Tomas Capaldi, UNLV & Dennis Newell, USU

Field Trips: Ganqing Jiang, UNLV & Carol Dehler, USU

Short Courses & Workshops: Bethany Coulthard, UNLV

Exhibits: Michael Nicholl, UNLV

Sponsorships: Simon Jowitt, UNLV

Student Volunteers: Pamela Burnley, UNLV

More information about the meeting (including [health & safety protocols](#)) is at:

<https://www.geosociety.org/GSA/Events/SectionMeetings/GSA/Sections/cd/2022mtg/home.aspx>

Upcoming Section Meetings & Organizers

2023: May 17-19, Reno, NV (Stacia Gordon, UNR)

2024: May 15-17, Spokane, WA: Joint with Rocky Mountain Section, Chad Pritchard, Eastern Washington University

2025: Sacramento, CA (David Shimabukuro, CSU Sacramento, Todd Greene, CSU, Chico)

Upcoming GSA Connects Annual Meetings

2022: October 9-12, Denver, CO, USA

Important Dates:

- Short Course and Technical Session Proposals (Feb 1, 2022)
- Student applications to [Onto the Future](#) (May 2022)
- Abstract submissions (summer 2022)
- Early Registration

Find information for field trips, short courses and technical sessions at the [2022 meeting Web site](#)

2023: Oct 15-18, Pittsburgh, PA USA

2024: Sept 22-25, Anaheim, CA USA

2025: Oct 19-22, San Antonio, TX USA

2026: Oct 11-14, Denver, CO USA

2027: Oct 17-20, Montréal, Québec, Canada

Upcoming Field Forum

2022 Thompson Field Forum: Old or Young?

The topographic evolution of the Sierra Nevada, June 20-27 2022. Application deadline

2 February 2022.

We would like to bring to your attention this mobile meeting/workshop at the summer solstice in northern California. Controversy over the age of the elevation of the Sierra Nevada has repercussions for the application of paleoelevation approaches in many other mountain belts; it also pertains to the mechanism(s) that have produced this mountain

range, including the proposed foundering of lithosphere. We seek a broad range of views and disciplines to help explore these controversies (we note the co-leaders of this field forum disagree on many points). Understanding the constraints and observations relevant to an elevation history involves contributions from diverse geoscience specialties ranging from geophysics to geomorphology, volcanology to low-temperature thermochronology, paleobotany to isotope geochemistry and more. Field relations are the key to many interpretations and can only be evaluated on the outcrop. This seven-day excursion with about 40 attendees will examine many key field sites in the Sierra during the daytime and will also include evening discussions centered on topics less tied to specific outcrops.

GSA welcomes applications from low-income, underrepresented, first-generation, non-traditional, women, veterans, LGBTQ+, students with disabilities and others. We expect to subsidize most expenses (including travel to Reno) for junior scientists (students and recent PhDs). We encourage everyone to apply, and the conveners are dedicated to ensuring the field forum is financially accessible to all participants. Costs for other attendees will likely fall in the \$100-\$600 range.

Co-sponsored by Geological Society of America Cordilleran Section, Structural Geology and Tectonics Division, Geophysics and Geodynamics Division, Environmental and Engineering Geology Division, Quaternary Geology and Geomorphology Division, and Geochronology Division. With support from the National Science Foundation.

The full announcement and additional details (including how to apply) are at:

www.geosociety.org/GSA/Events/Thompson/GSA/thompson/current.aspx

2021 Cordilleran Section Donations

Donations to the Cordilleran Section support student programs, including travel grants to the Cordilleran Section and Annual Meetings, educational programs, and awards to students for their presentations. You may contribute to the Cordilleran Section Fund directly at <https://gsa-foundation.org/funds-and-awards/>.

We thank the following donors whose generosity in 2021 (and in most cases for many years) helps support the Cordilleran Section and future geoscientists who study and do research in the Cordilleran region:

Patrick L. Abbott, Keil Albert, Mr. Brian F. Aubry, W. Scott Baldrige, John M. Bartley, L. Sue Beard, Bruce A. Blackerby, Patricia H. Cashman, Susan M. Cashman, Robinson Cecil, Douglas H. Clark, Diane Clemens-Knott, Brian L. Cousens, Darrel S. Cowan, Michelle M. Dooley, Linda Doran, Harvey R. Duchene, Pamela Fisco, Anthony J. Florez, Stacia Gordon, Carol Hasenberg, Christopher D. Henry, Angela S. Jayko, Jeffrey S. Lee, Peter W. Lipman, Allen J. McGrew, Richard D. McJunkin, Mitchell G. Mihalyuk, Jonathan S. Miller, Sandra J. Wyld, Ralph Moberly, Louis F. Oppenheim, Sarah M. Roeske, Karen L. Savage, Eric Schmidtke, Jeffrey M. Schroeder, Joshua J. Schwartz, Nancy A. Van Wagoner, Nancy J. Wolverson.

In Memory

We are saddened to have lost the following GSA Cordilleran Section members who died in 2019-2021. We honor the memories of:

Clarence R. Allen, Jean A. Aubouin, Nadine G. Barlow, G. Martin Booth, III, Wilfred J. Carr, William A. Clemens, Dennis Purver Cox, Keith A. W. Crook, Donald R. Fowler, Robert Hindle, Keith B. Ketner, Edmund Kiessling, H. Jay Melosh, Douglas M. Morton, Harvey W. Parker, Robert E. Reynolds, Anne M. Sanquini, B. Charlotte Schreiber, George C. Soronen, Herbert Tischler, Sr., Ronald Willden, Grant M. Young

The Cordilleran Section - and the Geoscience community more broadly - lost a beloved and valuable member this Fall with the passing of Paul Umhoefer (Northern Arizona University). Paul was instrumental to the geologic community and advanced our understanding in the fields of tectonics, basin analysis, structural geology, and stratigraphy. The value of his professional contributions stretch far beyond basic scientific advances thanks to his charismatic personality and his initiative to build strong and long-lasting collaborations that stitched together a broad, multi-disciplinary community of geologists and geophysicists. Paul provided valuable service and leadership to the Cordilleran Section, serving as our Chair from 2015-2016 and serving as General Chair of the Organizing Committee for the 2018 Cordilleran/Rocky Mountain Section joint meeting in his hometown of Flagstaff. Paul's decades-long legacy of service, science, and brilliance shines bright through the 36 graduate students he advised during his 30 years as a professor.

There will be forthcoming announcements about symposia at future GSA meetings, formal memorials, and other activities where we will further honor and celebrate the career and life of our good friend, Pablo.



Paul on a panga in the Gulf of California, Sept 2019

Engaging with the Cordilleran Section

We encourage your participation in all ways in the Cordilleran Section! Please consider a financial donation to the Section or a gift of your time through service on the Management Board (see the solicitation for our next Vice-Chair noted on page 1). Members are also an important part of supporting students at Section meetings- as judges for student posters (watch for emails or contact Scott Bennett (sekbennett@usgs.gov) and as mentors or panelists at national meetings. Please also consider your institution as a host for an upcoming Section Meeting (contact Rachel Teasdale: rteasdale@csuchico.edu).

Newsletter Contributions

If you have news you would like to share with the Cordilleran Section or ideas for content, please consider contributing to the Section Newsletter. Contact Rachel Teasdale (rteasdale@csuchico.edu) to share your suggestions.