

NAGT-GER Division Annual Report

Report to the NAGT Executive Committee
Geoscience Education Research Division
October 2, 2020

Current Division Officers

Past President: Katherine Ryker
President: Kelsey Bitting
Vice President: Emily Ward
Treasurer: Cory Forbes
Secretary: Leilani Arthurs
Media Director: Lauren Adamo
Graduate Student Liaison: Bailey Zo Kreager

Division Officer terms beginning at the annual meeting, Oct. 23, 2020

Past President: Kelsey Bitting (1-year term)
President: Emily Ward (1-year term)
Vice President: Leilani Arthurs (1-year term)
Treasurer: Cory Forbes (2nd year of 3-year term)
Secretary: Peggy McNeal (1st year of 3-year term)
Media Director: Lauren Adamo (2nd year of 2-year term)
Graduate Student Liaison: Bailey Zo Kreager (2nd year of 2-year term)

Division Priorities for 2019-2020

The division is now six years old and includes 381 members. In the fall of 2019 and winter of 2020, President Kelsey Bitting and Vice-President Emily Ward led a strategic planning process including multiple meetings and a subsequent survey to iteratively engage members of the long-range planning committee and the division officers. Priorities identified by this process were as follows:

- building strategic collaborations with other DBER and education research communities;
- building GER community capacity for future workshop leadership;
- building upon the GER community framework;
- building awareness of other conferences for border-crossers.

In addition to these priorities, and in alignment with the values of the division leadership and NAGT's statement on diversity and inclusion, we have also sought to diversify the social identity characteristics represented by community members highlighted in our newsletter spotlights, and to select featured articles and invite conference speakers who can help our community explore antiracist and inclusive education research methods and theoretical frameworks.

During this unique year, we have also sought ways to support our community in weathering the challenges of COVID-19. Finally, we continue to build community, promote GER, and provide networking and communication opportunities.

Professional Meetings

The 2020 Earth Educators Rendezvous, held virtually due to the conditions of COVID-19, presented a new and different set of opportunities for networking and community engagement. Graduate Student Liaison Zo Kreager developed and piloted an “EER Bingo” game that encouraged participants to engage in different activities and share their Bingo cards via social media; we hope to continue to engage members through this type of activity in the future. Vice President Emily Ward collaborated with representatives from the Geo2YC community to co-host a virtual happy hour event via Zoom on Wednesday night of the Rendezvous, attended by 50 members of the two divisions. Finally, based on the success of last year’s division-sponsored writing retreat, now incoming Secretary Peggy McNeal hosted a second writing retreat during the Rendezvous, which has since evolved into a continuing working group.

Since our last division report, the GER Division officers chaired a successful session at the 2019 Annual Fall Meetings of GSA, and Secretary Leilani Arthurs and Past-President Katherine Ryker spearheaded effort to secure and organize another (our 4th annual session) for the 2020 meeting; both the past and current sessions focus on GER Methods and Theoretical Frameworks. As in the past, both sessions received more abstracts than could be accepted (in 2019, to both an oral and poster session; in 2020, for the virtual session format). 2019 oral presentations are well received, with 31-60 attendees at each talk.

At each of our sessions, we invite three speakers, with one or two people selected from the broader disciplinary-based education research community. The invited speakers for 2019 were Kathleen Quardokus Fisher (Florida International University Department of Earth and Environment, discussing social network analysis), Daniel Lee Reinholz (San Diego State University Department of Mathematics and Statistics, discussing broadening participation via classroom analytics), and Stephanie Pfirman (Arizona State University School of Sustainability, discussing assessing student literacy using Kahoot!). In 2019, to maximize the impact of invited speakers and increase the potential for those from outside the geosciences to network with our community, Past-President Katherine Ryker hosted a dinner with all invited speakers and 10 members who responded to an open invitation to the division.

In alignment with strategic planning priorities identified as described above, we continued this year to emphasize building connections to other DBER communities by inviting two external speakers and one internal to the geoscience community for GSA 2020. Alison Mattheis (Associate Professor in Applied and Advanced Studies in Education at California State University) and Jordan Harshman (Assistant Professor of Chemistry and Biochemistry at Auburn University) have accepted invitations to present during our session. Darryl Reano (Postdoctoral Associate at the STEM Transformation Institute of Florida International University) will be our invited speaker from within the GER community. While an in-person dinner is not possible this year, we hope to organize a virtual networking event for these invited speakers to further discuss their work with the community.

To disseminate information about methods and theoretical frameworks more widely, we continue to archive presenter’s public contact information and slides (if the presenter chooses to share them) on our website here: <https://nagt.org/nagt/divisions/geoed/methods>.

The Division will also sponsor four additional 2020 GSA sessions on individual, department, program, and institution-level approaches to student success, integrating active learning strategies, fluid earth science education, and undergraduate research.

Communications

We continue to send out our Newsletter (the GER Exchange) to our members on a monthly basis from September – December and February – April. Newsletters include job and funding opportunities, highlight research articles of relevance to the community, promote relevant webinars or other professional development opportunities, and advertise for any sponsored sessions or events. We have continued our “Spotlight” feature to highlight the type of work done by various researchers in the community, including recent profiles of Alison Jolley, Lecturer in Academic Development at the University of Waikato’s Te Puna Ako – Centre for Tertiary Teaching & Learning; Patricia (Paty) Jaimes, PhD Candidate at the Michigan State Geocognition Research Lab; and Renee Clary, Professor at Mississippi State University’s Department of Geosciences and Director of the Dunn-Seiler Museum. A full list of “Spotlights” can be found at <https://nagt.org/nagt/divisions/geoed/spotlight>. In alignment with the priorities identified by the strategic planning process described above, newsletters also highlight conference opportunities outside the geosciences with relevance to GER professionals.

To view past newsletters, visit the archive at <https://nagt.org/nagt/divisions/geoed/archive>.

Awards

As established in 2018, the GER Division offers two awards to senior researchers to recognize their work. The Transformation Award honors “colleagues who have made significant contributions to the development of and capacity for geoscience education research.” In 2019, this award was presented to Cathy Manduca (Carleton College), and in 2020, David McConnell (North Carolina State University). The Collaboration Award honors non-GER colleagues who have “infused the GER community with new approaches to GER.” No recent nominations have been received the Collaboration Award. Awardees receive Division membership for a year, and are recognized at the NAGT luncheon at GSA.

In 2020, in response to the COVID-19 crisis and its impact on the community, the division also offered a Graduate Student Emergency Fund of up to \$500 per person. Three applications were received and are currently under review. While the fund was primarily intended to cover GER graduate students’ research-related costs, applications primarily request support to cover the cost of housing and utilities.

Finances

As established in 2018, the GER division account is nested under the NAGT main account. The treasurer submits expenses to the NAGT executive office for payment. The division has an account balance of \$8,403.47 (September 4, 2020). Please see our financial report for details on annual expenditures.

Webinars

This year, we began coordinating with the newly-formed NAGT webinar committee to recommend topics and speakers of interest to the GER community. In December of 2019, Vice President Emily Ward hosted a webinar on “How to be an effective reviewer for the Journal of Geoscience Education” featuring then Editor-In-Chief of JGE Anne Egger and four past recipients of the JGE Outstanding Reviewer Award. In May of 2020, Past-President Katherine Ryker hosted NSF Program Officer Brandon Jones titled “Funding Opportunities for Geoscience Education Related Initiatives and Research.” This October, Graduate Student Liaison Zo Kreager will collaborate with Larry Collins to offer a webinar, “Navigating life as a GER student (or interested in becoming one): Getting involved and networking in the community.” Finally, through contacts with President Kelsey Bitting, the webinar committee is pursuing a webinar later this fall with Sarah Bunnell (Amherst College) on the outcomes of a “Being Human in STEM” chemistry lab redesign.

At the beginning of summer 2020, the GER division sent a survey to membership, asking about their interest in participating in virtual discussion groups around the GER Grand Challenge themes. Survey responses at that time were few, but we hope to explore opportunities to convene these types of conversations and support for the community after the stress of the COVID epidemic has concluded. These discussion groups would operationalize two priorities identified by the strategic planning process, namely building on the GER Grand Challenges and working to build community expertise toward future workshop leadership.

By-laws Revision

We successfully revised our by-laws in 2019-2020; these went into effect on July 17, 2020. These revisions clarified the term lengths of the two new positions (Media Director and Graduate Student Liaison, each set at two years), and specified that officers must be current dues-paying members of the division.

Concluding Thoughts and Welcome

Throughout an exceptionally difficult year of COVID, racial violence, and political upheaval, our division and the leadership team have worked hard to continue offering a space for networking, skill-building, and growth to GER researchers from all institution and position types, and to be responsive to the emerging needs of that community. I’m deeply proud of what we’ve accomplished together, and hopeful about the future capacity of this leadership board to guide our division to ever greater achievements in service of the GER community.

I extend a special note of thanks and recognition to Katherine Ryker, who will be stepping off the board this year. Dr. Ryker has served this division without pause since its inception, guided its development and growth over the past six years, and undoubtedly played a personal role in the growth of GER as a field and the increased respect it is now accorded. Her wisdom, institutional memory, and “helium hand” will be missed. I also want to thank Emily Ward, Leilani Arthurs, Cory Forbes, Lauren Adamo, and Zo Kreager for their continued service, in new capacities and old, and to welcome to our new Secretary, Peggy McNeal. I look forward to our division’s continued work together!

Kelsey Bitting, on behalf of the 2019-2020 NAGT-GER Division Executive Board:

President Kelsey Bitting, Elon University
Past President Katherine Ryker, University of South Carolina
Vice President Emily Ward, Rocky Mountain College
Treasurer Cory Forbes, University of Nebraska-Lincoln
Secretary Leilani Arthurs, University of Colorado-Boulder
Media Director Lauren Adamo, Rutgers University
Graduate Student Liaison Zo Kreager, Northern Illinois University