GEOSCIENCE INFORMATION SOCIETY

newsletter

Number 284, December 2019 ISSN: 0046-5801

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President's Column:

By Cynthia Prosser

I find it difficult to realize the Annual Meeting ended over a month ago. Phoenix is a beautiful city and it was delightful to work with the people there. The Sheraton Phoenix Downtown provided a variety of delicious and somewhat unexpected snacks for our various sessions. Let me, again, thank our sponsors for their generous support, both financial and physical: Geological Society of America, Society of Economic Geologists, The Geological Society, GeoScienceWorld, American Geophysical Union, and the Society for Sedimentary Geology. Further thanks goes to Kevin Pardon and Arizona State University for hosting this year's Geoscience 101 which was as usual capably led by Clara McLeod. Additional thanks go to our GL 101 presenters: Emily Wild, Stephanie Earls, Linda Zellmer, Amanda Bielskas, and Mary Ellen Vedas. Also thanks goes to Emily Wild for convening this year's Poster Session. The meeting would not have been the success it was without everyone's hard work.

Unfortunately, we were a small group this year – so small that we did not have a quorum at the Business Meeting. I am curious as to why there were so few of us this year. Was it because the meeting was so much earlier this year and/or were there other factors affecting attendance and participation? I would appreciate if you shared your thoughts with me.

Annual Meeting was busy as usual. During the Business Meeting, we enjoyed good conversation including the value of the Society; justifying coming to the meetings; encouraging new librarians to join the Society; and how we, GSIS, support our members presenting. Then, in the Professional Issues Roundtable further ideas exchanged included discussing Open and FAIR Data led by Shaun Hardy and societies moving publications to commercial publishers led by Michael Noga. Robust discussion continued on the cost of the Big Deal for journals and ways to support our patron's needs. It is always an honor to see the Awards given. Congratulations go out to: Outstanding Series Award to the New York State Geological Association; Best Guidebook (popular) to Edgar

(Continued on page 3)

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(Continued from page 1)

W. Spencer for the Guide to the Geology & Natural History of the Blue Ridge Mountains; Best Guidebook (Professional) to John Harper and Albert Kollar for the Geology of the Early Iron Industry in Fayette County Pennsylvania; the Mary B. Ansari Research Resource Award to Sam White, Christian Pfister, and Franz Mauelshagen for the The Palgrave Handbook of Climate History; and the Mary B. Ansari Distinguished Service Award to Clara McLeod for her continued work and support of the Society. Our field trips to the Heard Museum and the Grande Pueblo Museum & Archaeological Park gave us an insight into the peoples and history of the region. As always it was a delight to be there - I know I always come away from the meeting with new ideas and professionally refreshed.

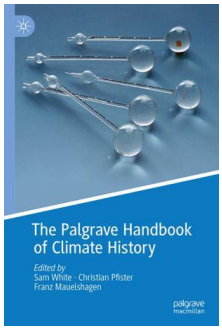
We tried something new this year. While circumstances prevented Chris Badurek and Bob Tolliver from being with us in person, they were able to join us in the Business Meeting by using Zoom. There were a few glitches but it worked surprisingly (to me) smoothly. We are so glad they could participate and we benefited greatly by their input. If using Zoom or similar software for distance access is something the members would find useful, we will need to consider offering this option in the future. This would permit more member participation even if they could not travel to the meeting.

Watch for upcoming opportunities to serve on committees and in society appointments. Much of the committee work can be done via email and telephone. Next year's Meeting is in Montreal and now is a good time to start thinking about your oral presentation or poster. All these activities look great on Resumes, CVs, and Dossiers. Another benefit to serving is getting to know other GSIS members better.

I want to be responsive to you all, therefore, if you have any ideas or concerns please don't hesitate to contact me: cprosser@uga.edu I'm looking forward to working with you all in the upcoming year.

2019 GSIS Awards

2019 GSIS Mary B. Ansari Best Research Resource Award Winner

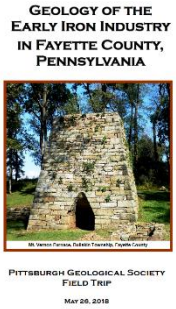


On behalf of the GSIS Best Research Resource Award Committee,
I am pleased to announce that 2019 award goes to:

The Palgrave Handbook of Climate History
Editors: White, Sam, Pfister, Christian, Mauelshagen, Franz (Eds.)
2018 ISBN-10: 1137430192; ISBN-13: 978-1137430199
https://link.springer.com/book/10.1057/978-1-137-43020-5

In consideration of candidates for the winner of the award, the committee looks at such things as: Uniqueness, Comprehensiveness, Usefulness, Quality, Authoritativeness, Organization, Illustrations, and Competition, new edition quality, quality of introduction, and quality of references. This research resource will surely prove to be invaluable to climate change researchers. None of the editors were able to attend, so accepting on behalf of Dr. White and his European colleagues is Petra van Steenbergen from Springer, parent company to Palgrave publishing.

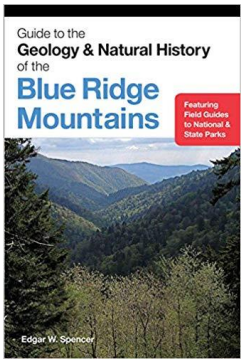
GSIS Best Guidebook Awards:



2019 Best Guidebook (Professional)
"Geology of the Early Iron Industry in Fayette County Pennsylvania"
By John Harper and Albert Kollar
Pittsburgh Geological Society Field Trip May, 26, 2018
Open Access Online: https://pittsburghgeologicalsociety.org/uploads/pubs/2018_PGS_Fieldtrip_Guidebook_Fayette_Co_Iron.pdf

The "Geology of the Early Iron Industry in Fayette County Pennsylvania" is well-written and well-illustrated, with both professional and popular sections. I can see local geology teachers taking students on these trips to show a chapter in the development of an important early ore industry in the United States. With the aid of detailed road logs, guidebook users can see and learn about the geology, industrial development, history, and fossils in Fayette County. Field trip leaders can use the guidebook to expand on several topics, depending on the interests of their trip attendees. An additional benefit of the guidebook is its free availability online, so any traveler with an interest in the area can explore on their own.

The Pittsburgh Geological Society has performed a great model for other local societies that are interested in spreading the benefits of their field trips to wider audiences.



2019 Best Guidebook (Popular)
Guide to the Geology and Natural History of the Blue Ridge Mountains
By Edgar E. Spencer

This title contains much of interest to a range of users and is successful as a natural history, guidebook, and nature guide. The illustrations were especially noteworthy

—this was by far the most attractive guidebook we reviewed. In addition, the committee found the book to be well organized and easy to use. Although each section covered very different subjects, they were each organized in an intuitive manner, and it was easy to find information on a specific topic of interest. On the field trip portion of the book, the specific sites of interest were thoughtfully chosen and well-described, with easily navigable directions and access information.

As a side note, one of our committee members who has traveled a fair amount on the Blue Ridge Parkway and the surrounding areas, she was excited to find from this title new places to explore and much to learn about familiar sites.

Best Guidebook Series 2019: New York State Geological Society

Since 1925 this group of geoscientists and geoscience enthusiasts have been gathering to share their love of geology via an annual weekend of field excursions to experience the geology of an area in New York, adjacent states, or provinces of Canada. Through the Annual Field conference and accompanying field guide, the association's mission is to promote the general understanding of the geology of New York State. The majority of their guidebooks are freely available online for public use. The Association has contributed to their value by indexing each by topic and geo-referencing over a half century of field trip stops and routes.

Musings: Our users – an Appreciation

By Michael M Noga

I realize that other subject librarians have good relationships with their users, but I think geoscience librarians have some of the best experiences. Here are some of my experiences. Yours are welcome for the next Newsletter.

When I started at UCLA, the Head of the Earth and Space Sciences Library Committee took me around to just about every faculty office to personally meet the professors in their spaces. It was a very helpful introduction to my core user community. The relationship with the department grew. I was welcomed on field trips, at lectures, and celebrations. Faculty invited to me to special occasions, even a reception at a house in Malibu. My one regret is that I didn't accept the grad student invitation to portray Conan the Librarian at the holiday party.

I have only been on one departmental field trip at MIT, partly because most of my work is not focused on geoscience librarianship. At the end of the field trip, one of the trip leaders asked whether was the trip was more refreshing than being cooped up in the library. The ironic thing about the comment is that he was an excellent library user and a big book collector. The field trip was actually the beginning of a long user relationship.

Faculty have nominated me to serve on their society publication committees. I learned about publishing, the editorial process, and a lot of general understanding about scientists work in their disciplines. This "inside look" would not have been possible without the goodwill that my users offered.

At Stanford and UCLA, I helped a lot of graduate students directly. It has been interesting to follow their careers, hear their talks when they are invited to campus, or meet them at GSA. Sometimes a grad student that has been treated well by their undergraduate or graduate librarian will seek out the librarian at their next institution, whether as a postodoc or professor. Two grad students from my Stanford

days come to mind. One continued to request hard-to-find literature because he knew the library would come through, no matter how long it took. We give him the moniker "Can you top this?"

I will retire soon and hope that libraries do not lose their close liaison relationships with the users. Some become long-term friends. Both parties benefit from the relationship. The closure of branch libraries was a major blow to establishing relationships. Let's hope that librarians don't become too remote from their users.

Worth Reading: Summary of the ACRL publication Open and Equitable Scholarly Communications: Creating a More Inclusive Future

By Linda Musser, Penn State University

If you have not yet had a chance to read the Association of College & Research Libraries' publication: "Open and Equitable Scholarly Communications: Creating a More Inclusive Future", which was published this summer (June 2019), it is worth a look. At 139 pages, it gives the appearance of a very hefty work however the majority of that is appendices. For those who are time crunched, there is an executive summary but I recommend taking the time to read the 33 pages that form the body of the work, particularly if research is part of your responsibilities. To quote from the ACRL website describing the work:

Open and Equitable Scholarly Communications is an action-oriented research agenda designed to provide practical, actionable information for academic librarians; include the perspectives of historically underrepresented communities in order to expand the profession's understanding of research environments and scholarly communication systems; and point librarians and other scholars toward important research questions to investigate.

Organized into three major priority areas—People, Content, and Systems—each area includes actions that can be taken now and ideas for further research:

- Embracing Diversity and Inclusion
- Improving the Working Lives of People Engaged in Scholarly Communications
- Increasing Awareness Concerning Creators' Rights
- Considering How Value is Assigned to Scholarly Materials
- Creating More Representative and Open Collections
- Supporting Sustainable Technological Infrastructure
- Creating Systems That Permit More Access to More People
- Building Mission-Aligned Organizational and Financial Systems
- Advancing Innovation in Academic Libraries

Accompanying the report are extensive appendices, including an essay on issues of social justice in scholarly communications that have informed this agenda, findings from an online survey, and an annotated list of recommended readings. With your engagement, the effective practices and important research questions in Open and Equitable Scholarly Communications can help accelerate the transformation of the scholarly communications system.

Gadget Envy

By Linda Musser, Penn State University

As libraries evolve, they encompass more services and resources. The Framingham Public Library in Massachusetts has created an impressive and inspiring Library of Things. Their resources range from games to musical instruments to tools to miscellaneous maker things (cake pans, cookie cutters, knitting needles, etc.). They even loan paper shredders – brilliant! Three librarians at the University of Florida wrote a paper on the topic of tool libraries in 2019 in which they identified some academic libraries with tool libraries. These included the Universities of Florida, Idaho, Iowa, Washington and MIT. While most students probably don't need cake pans, perhaps some of the staff would be interested and services that keep the library relevant to users are worth investigating.

And talking about gadgets, our library recently updated the public scanning options to include a KIC book scanner. It doesn't require users to log on to the network or know how to use any of the Adobe products so it has been relatively popular. Omnichargers (formerly Oomf) replaced our older portable chargers and they seem to be working well as a self-service offering. The old light table in our library finally died so we are testing a replacement in the form of a light box. It is portable, lit by LED and connects by a USB cable. What gadgets have others tried and found useful?

Our new light box…

Final Call

Submissions for
2018 Proceedings
Indianapolis, IN
Want to submit a paper, etc.
Please contact me.
Cynthia Prosser
cprosser@uga.edu

Snoopy from: http://clipartandscrap.com/announcement-clip-art_8600/

Honoring Earth Science Week in a Planetary Style

By Stephanie Earls, Washington Geology Library

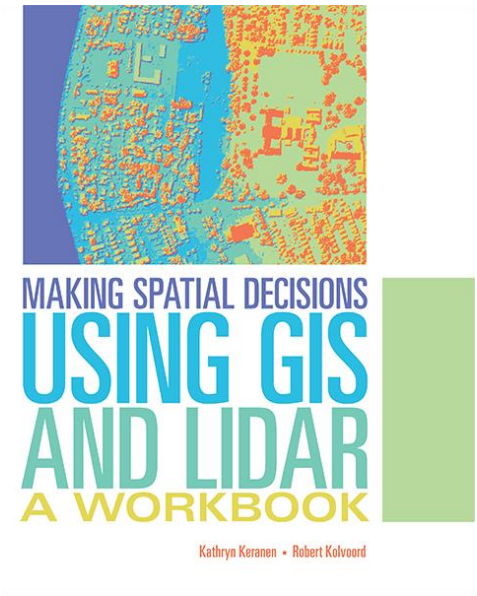
In honor of Earth Science Week October 13th-19th, 2019, the Washington Geology Library put on a couple events to celebrate. The annual Rock Auction, which has been happening for more than ten years, raises funds to subsidize purchases for the library. The event is a silent auction where folks bid on all sorts of geologic items, such as fossils from Washington State, stone sculptures, or geologic guidebooks. Competition gets fierce as the auction ends. In the recent past, proceeds from the auction were used to purchase educational items like an augmented reality sandbox, which is like a live topographic map. Kids and adults alike love playing/learning in the sandbox.

The day after the Rock Auction, National Geologic Map Day was celebrated by hosting an open house in the library. New geologic maps made by the Washington Geological Survey were on display along with a geologically themed cake. The Earth Science Week theme this year was "Geoscience is for Everyone." Our extraordinarily talented geologic baker felt inspired to create a set of solar system cakes including an asteroid belt and Pluto! The planets tasted as amazing as they looked.

Next year we are hoping to tie in National Fossil Day, by having visitors stop by and learn how to prep fossils using various tools and drills. Happy Earth Science Week!

Review: Making Decisions Using GIS and Lidar: A Workbooks

Chris Badurek



Keranen, K., and Kolvoord, R. (2016) **Making Decisions Using GIS and Lidar: A Workbook.** Redlands, CA: ESRI Press Academic. ISBN: 9781589484290, 216 pages, $79.99.

The availability and application of lidar data in the geosciences is an increasingly frequent topic in the geoscience literature and related conference sessions at the GSA and AGU conferences. Lidar is an acronym for light detection and ranging, a form of active remote sensing to collect point clouds of elevation data. Point clouds are simply points of XY positional reference associated with an elevation for each point viewed with GIS software such as ArcGIS. These point clouds are used to identify elevation measures of buildings, tree canopies, stream channels, and geomorphic features. Point clouds are also processed with GIS software into raster data layers or even viewed in 3D visualization application such as ArcScene. Interest in and the use of lidar data sets in undergraduate and graduate geosciences programs is rapidly increasing and a need exists for quick introductions to working with these data sets.

Making Decisions: Using GIS and Lidar, authored by faculty at James Madison University's Department of Integrated Science and Technology, aims to provide this quick introduction to lidar data processing. The organizing principle of this textbook is the authors' workflow defined as "1. Define the problem or scenario, 2. Identify the deliverables needed to support decisions. 3. Document, set environments, and examine the data. 4. Perform analysis starting with a basemap." (p. x). Each section begins with a short scenario for lidar data use along with a set of learning objectives. The modules are focused on producing 'deliverables,' usually maps or data sets derived from data processing with ArcGIS. Data for tutorials and supporting worksheets for lab assignments are available for download from the ESRI Press website. These come as .exe files likely to require a long time to download as lidar data sets are usually quite large. Users may also download the 180 day trial license if needed.

The book is organized into ten modules beginning with building a LAS dataset (a standardized lidar data format) and introduces classification of points, including discussion of 'all return' lidar which enables separation of bare earth from vegetation. The remaining topics feature case studies focused on 3D models of urban locations in ArcScene (Baltimore and San Francisco), line of sight analysis for potential interference of buildings on cell phone signals (Baltimore), storm surge in San Francisco using lidar and DEMs, solar radiation analysis on campus buildings, and shoreline change post-Hurricane Sandy in New Jersey. The book concludes with lidar analysis of depression wetlands and methods for calculating tree canopy heights for state and national forests in Virginia and Pennsylvania.

Short and easy to follow, this text succeeds in that it is useful for quickly learning basic lidar data processing. It also introduces useful lidar data resources including USGS Earth Explorer, OpenTopography.org, SF Open Data, and NOAA Coastal Services Center. However, the

text is limited in that it is a fairly basic introduction and useful primarily for undergraduates and novice GIS users. In fact, its use was piloted with high school students.

Overall, I recommend the text for students who need to learn basic lidar data processing methods with general applicability. Geoscience students and faculty may be disappointed in the applicability of the case examples to the discipline and I would caution those against spending too much time with this textbook. For example, the text refers to lidar use for flood modeling, geological fault analysis, geomorphic mapping, and analyzing stream slopes but provides no case examples on these topics. Yet, the number of lidar processing textbooks for beginners is limited and the methods provided make for a useful reference to basic lidar data processing methodologies most relevant to STEM undergraduates.

Final Call
Submissions for
2018 Proceedings
Indianapolis, IN
Want to submit a paper, etc.
Please contact me.
Cynthia Prosser
cprosser@uga.edu

Snoopy from: http://clipartandscrap.com/announcement-clip-art_8600/

GSIS Member News:

Sam Teplitzky transitioned to a new role as Open Science Librarian at UC Berkeley. In this role she will promote open science principles, tools, and services to researchers and students. She will continue as the selector & liaison for Earth & Planetary Science, and take on the role of UC Berkeley liaison to the Lawrence Berkeley National Laboratory.

Michael M Noga will retire after 25 years at MIT on March 2, 2020, the first Snow Day after Leap Day. He will then move to the Great Lakes.

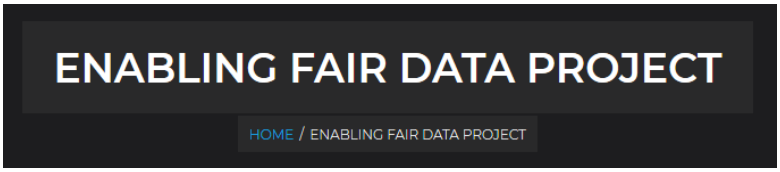
FAIR Data Sharing in the Earth and Space Sciences – GSIS Professional Issues Roundtable 9/24/2019

By Shaun Hardy, Carnegie Institution for Science

"To ensure that well documented data, preserved in a repository with community agreed-upon metadata, and supporting persistent identifiers becomes part of the expected research products submitted in support of each publication." - *Enabling FAIR Data Project*

FAIR data is …
Findable
Accessible
Interoperable
Reusable

- M. D. Wilkinson et al., The FAIR Guiding Priciniples for scientific data management and stewardship, *Scientific Data 3*,160018, 2016. DOI: 10.1038/sdata.2016.18
- S. Stall et al., Advancing FAIR data in Earth, space, and environmental sciences, *EOS 99*, 5 November 2018. DOI: 10.1029/2018EO109301



https://copdess.org/enabling-fair-data-project/

Community-driven project connecting researchers, publishers, repositories, funders, and researchers in the Earth, space, and environmental sciences in enabling FAIR Data on a large scale.

FAIR Data Commitment Statement

Signatories agree to:

- Discontinue using supplements as the primary archive for data
- Deposit data in open, FAIR-aligned repositories instead
- Ensure that unique, persistent identifiers are used for authors (e.g., ORCID), research objects (e.g., DOI), and physical samples (e.g., IGSN)
- Adopt uniform "author guidelines" for research data availability and data citation

Examples of data policies:

AGU: "The data availability statement for each data set must be included in the Acknowledgments section of your paper indicating where readers can access the data. See the information on data citation for additional guidance. The availability statement should include an in-text citation, licensing information, and access restrictions. Statements to the effect of 'data available from authors' are not acceptable." (https://www.agu.org/Publish-with-AGU/Publish/Author-Resources/Data-for-Authors)

GSA: "All authors are encouraged to permanently archive new data they use in papers published with GSA in trusted repositories that: Maintain open access to data; Provide long-term preservation; Use persistent and unique identifiers; Register metadata; Include quality assurance. GSA will facilitate cross-referencing of data between published papers and outside repositories via use of DOI numbers whenever possible." (http://www.geosociety.org/gsa/pubs/ dataPolicy.aspx)

FAQs for researchers

- Selecting a repository
- Data deposition and data sharing
- Writing a data availability statement (DAS)
- How to cite data, software, physical samples

https://repositoryfinder.datacite.org/

- Free tool for finding FAIR-compliant repositories for Earth, space, environmental science data
- Hosted by DataCite and queries re3data registry
- Displays only repositories that allow data uploads (currently 1,611 repositories)
- Can restrict search to repositories that meet criteria of "Enabling FAIR Data" (currently 204)
- Indicates if repository is certified as "trustworthy" by CoreTrustSe

https://www.re3data.org/

- Global registry of repositories in all disciplines
- Currently includes 2,399 repositories - including 712 in geosciences/geography
- Browse by subject, content type, country

https://datacite.org/

- Global registry of datasets and software (currently 19.5M DOIs registered)
- Data citation formatting tools

GSIS Conference Photo Roundup!

Photos and Captions by Shaun Hardy, Carnegie Institution for Science

Fig. 1 Participants and instructors gathered at Arizona State University Library in Phoenix for the 15th consecutive year of "Geoscience Librarianship 101" on September 21.

Fig. 2 Amanda Bielskas shares collection development expertise at GL101.

Fig. 3: Business Meeting attendees listen as Chris Badurek and Bob Tolliver participate remotely.

Fig. 4: Matt Hudson passes the gavel to incoming president Cynthia Prosser at the conclusion of the Business Meeting.

Fig. 5: Members of the 2020 Executive Board. L to R: Emily Wild (vice-president/president-elect), Cynthia Prosser (president), Amanda Bielskas (co-editor), Stephanie Earls (secretary), Michael Noga (co-editor).

Fig 6: Michael Noga present the Best Guidebook Award to Albert Kollar (Carnegie Museum of Natural History) for *Geology of the Early Iron Industry in Fayette County, Pennsylvania* (Pittsburgh Geological Society, 2018).

Fig. 7: Petra van Steenbergen (Springer Nature) accepts the Mary B. Ansari Best Research Resource Award for *The Palgrave Handbook of Climate History* (2019) from Amanda Bielskas.

Fig. 8: GL101 instructors (L to R: Amanda Bielskas, Stephanie Earls, Emily Wild, Linda Zellmer, Mary Ellen Vedas) were honored for their service at the Awards Luncheon.

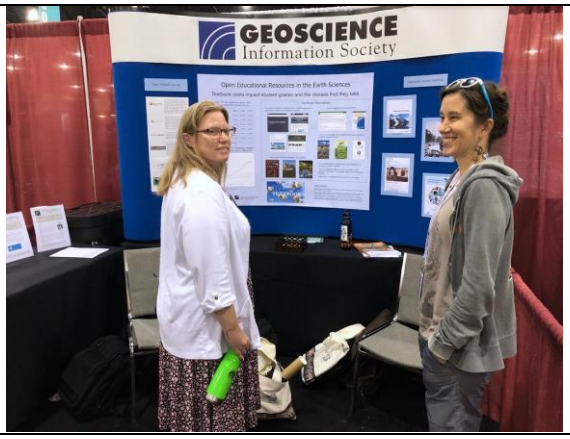


Fig. 9: Emily Wild and Stephanie Earls check out Linda Zellmer's exhibit on open educational resources at the GSIS booth.

Fig. 10: FAIR data and society journals in the geosciences were among the topics sparking discussion at this year's Professional Issues Round Table.

Fig. 11: Members enjoy lunch and discussion about this year's common read – John Ross's *The Promise of the Grand Canyon*.

Fig. 12: Neal Marriott (Geological Society of London) presents an update on GSL publishing and library services at the Vendor Update.

Fig. 13: Cynthia Prosser thanks the presenters at this year's Vendor Update. L to R: Howard Harper (SEPM), Neal Marriott (Geological Society of London), Brett Rubinstein (GeoScienceWorld), Marc Segers (GSW).

Fig. 14: Clara McLeod accepts the 2019 Mary B. Ansari Distinguished Service Award from Cynthia Prosser at the GSIS-Geoinformatics Division Joint Reception on September 24.

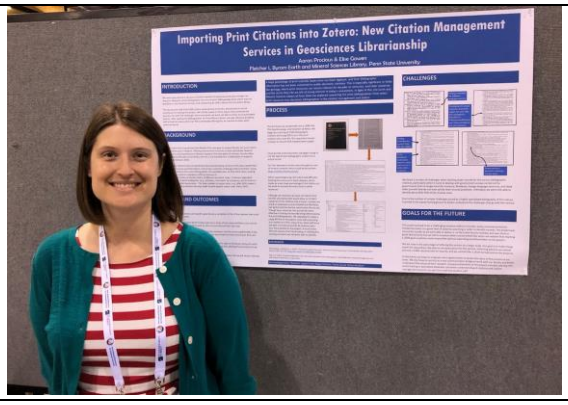


Fig. 15: Elise Gowen and Linda Zellmer were among the members presenting at this year's poster session on "Advances in Geoscience Information/Communication."

Fig. 16: Elise Gowen and Linda Zellmer were among the members presenting at this year's poster session on "Advances in Geoscience Information/Communication."

Newsletter Content Wanted: Please send submissions by e-mail to the Newsletter Co-Editors Amanda Bielskas asb2154@columbia.edu or Michael Noga mnoga@mit.edu.