



Leading the Way

2020 Annual Report
American Geosciences Institute



www.americangeosciences.org

The American Geosciences Institute represents and serves the geoscience community by providing collaborative leadership and information to connect Earth, science, and people.

LETTER TO OUR STAKEHOLDERS

Leadership is the core of the geoscience enterprise.

Geoscientists lead both in building understanding of our world and in shaping that world. They rely on their professional societies to lead by providing specialized knowledge, skills, publications, products, and programs. And those professional societies, in turn, look to the American Geosciences Institute (AGI) to provide collaborative leadership that unifies and strengthens our wide-ranging, multifaceted geoscience community.

When the coronavirus pandemic struck in 2020, AGI led the way. The geoscientists of our federation were the first to learn about how the geoscience community was managing the pandemic — by way of new webinars and other online resources, new scholarship opportunities for geoscience students, new virtual professional development for educators, new responses to diversity challenges, and new efforts to set geoscience policy priorities.

In the past fiscal year, from October 2019 through September 2020, we innovated, adapted, and collaborated with partners to support federation geoscientists through this difficult time:

- AGI launched its Geoscience COVID-19 Survey, with support from the National Science Foundation, sharing findings week after week, to show how the geoscience workplace and education are changing in response to the pandemic.
- We partnered with member societies to produce and disseminate our Critical Needs Document detailing how geoscience can address national priorities for the next administration.
- AGI responded to calls to promote diversity by creating a new Scholarship for Advancing Diversity in the Geoscience Profession and collaborating with member societies to craft a Diversity Statement offering key guidance.
- To assist geoscientists during the pandemic, AGI announced free and discounted resource offerings including AGI's *Glossary of Geology*, *Geoscience Handbook*, *The Geotimes Collection*, professional development modules, and education resources.

- The AGI/ExxonMobil Exploration Teacher Leadership Academy developed a new virtual format to ensure high-quality professional development for K-8 teachers from across the country.
- AGI's GeoRef, the primary bibliographic database covering geoscience literature, expanded references to over 4.2 million publications in more than 44 languages.
- We provided high-demand virtual resources throughout the year, including the all-new "Earth Materials Frontiers" Webinar Series offered through Earth Science Week 2020.
- And AGI ended the year by initiating plans to host a Leadership Forum on COVID-19 in 2021, gathering geoscience leaders to share insights on the future of professional associations, academia, and industry.

The AGI federation represents over a quarter-million geoscientists worldwide. Through affiliation with AGI, our member societies continue to keep their members at the leading edge of geoscience, including new and longstanding opportunities, advantages, and benefits. AGI member societies ensure that their members are first in line for programs and services that equip them for the leadership roles they are called upon to play as geoscientists.

When 2020 posed problems, AGI's nimble response pointed the way to solutions. And we did none of it alone. We notched accomplishments by working in close collaboration with our many member societies, organizational partners, and friends in the geoscience community. Thank you for making it possible for us to lead — and succeed — together.



David Wunsch
AGI President



Sharon Tahirkheli
AGI Interim
Executive Director

CHEERS

“The resources provided by AGI are invaluable for geoscientists. GeoRef is the premier database of geoscience literature and is used extensively by researchers worldwide. The Workforce program surveys and analyzes trends in geoscience education and employment. This information is critical for students, educators, and employers. These are just two of the many impressive AGI programs.”

— *Sharon Mosher, William Stamps Farish Chair in Geology, Jackson School of Geosciences, University of Texas at Austin*

“Working with AGI has been one of the highlights of my career. No other organization represents the breadth of the geosciences so well or does more to further all geoscientists’ common interests. AGI’s programs in education and outreach, workforce development, scholarly information, policy, awards, and other areas ensure that the geoscience community can and does speak with a unified voice.”

— *Rodney Ewing, Professor of Geological Sciences, Stanford University*

“During my career in academia, particularly in roles such as department chair, I greatly valued the information and data compiled by AGI on students, academic programs, and career opportunities and paths. And as a geoscientist concerned with the use of science to inform public policy decisions related to Earth’s resources and the environment, I see an important role for AGI’s Policy and Critical Issues programs designed to convey an understanding of relevant geoscience to policy makers and the public.”

— *Jean M. Bahr, Professor Emerita of Geoscience, University of Wisconsin-Madison*



AGI BY THE NUMBERS

48 Member societies in the AGI federation

1,817 Respondents participating in ongoing survey gauging COVID-19 impact on geoscience

93,600 References added to the GeoRef bibliographic database in 2020, bringing the total to more than 4.2 million

9,892 Live and post-event viewings of 14 webinar events

32 Geoscience Online Learning Initiative (GOLI) on-demand online courses available

494,520 Page views on the Earth Science Week website

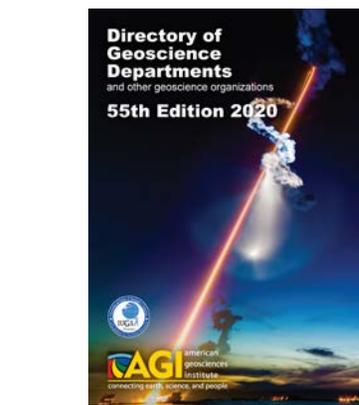
32 Earth science teachers from 10 states who received professional development AGI/ExxonMobil Geoscience and STEM Teacher Leadership Academy

441 People attended live Next Generation Science Standards for Earth and Space Science Working Group webinars for educators



GEOSCIENCE PROFESSION AND HIGHER EDUCATION

- Collected biweekly survey responses from nearly 2,000 individuals and organizations and regularly reported findings to the geoscience community regarding the impact of COVID-19 on geoscience employment and education environments.
- Released the *Directory of Geoscience Departments, 55th Edition*, the most comprehensive source of information about geoscience departments and researchers available, containing a state- and country-sorted global listing of nearly 2,000 geoscience departments, research departments, and institutes, as well as over 18,000 faculty and staff.
- Struck a cooperative agreement for the development and distribution of Geoscience Online Learning Initiative (GOLI) online courses among AGI, AIPG, SEPM, and ASBOG, expanding the GOLI catalog of more than 30 on-demand courses for geoscientists.
- Awarded one \$5,000 Harriet Evelyn Wallace Scholarship each to master's student Ali Downard and doctoral student Corinne Kuebler, selected from an extremely competitive pool of over 100 geoscience student applicants.
- Hosted a Geoscience Licensure Fellow — sponsored by ASBOG, AIPG, and AIPG Foundation — who developed a comprehensive nationwide database on geology licensure, including licensure requirements, legislative history, and sunset and review process.



Ali Downard



Corinne Kuebler

EDUCATION AND OUTREACH

- Launched the Geoscience Women in STEM website—including profiles of leading women in science and engineering as well as teaching and learning resources inspired by their work—with a free webinar for educators, as part of IF/THEN®, an initiative created by Lyda Hill Philanthropies to promote the participation of girls and women in science, technology, engineering, and math fields.
- Facilitated collaboration across the geosciences by organizing monthly sharing of information through our Informal Geoscience Education Informational Sharing Group that encompasses education program leaders from a dozen organizations.
- Provided professional development to Earth science educators, moving much existing programming to virtual formats and initiating new programs, including the 12th annual AGI/ExxonMobil Geoscience and STEM Teacher Leadership Academy’s virtual program that featured hands-on activities (equipment was sent to teachers’ homes), presentations by and discussions with ExxonMobil scientists, and instruction in technology applications such as Google Tour Creator, ArcGIS StoryMaps, and Google Earth Projects.
- Released the 12th edition of the AGI/NAGT *Laboratory Manual in Physical Geology*, with enhanced attention to systems thinking and a new chapter on geological evidence relating to climate change, as well as a wide array of web-based resources designed to support instructors as courses moved online due to the pandemic.
- Initiated, in partnership with the Education Development Center, a three-year, National Science Foundation-funded collaborative research project called “Streams of Data” to shed light on the ways students currently use, and can more effectively use, scientific data sets of federal agencies and other organizations to learn science and mathematics.
- Organized nine new webinars for geoscience educators (in a series that over five years has generated 40) as part of the Next Generation Science Standards in Earth and Space Science Working Group, an ongoing collaboration with the National Association of Geoscience Teachers and the National Earth Science Teachers’ Association.

Geoscience Women in STEM

Ambassadors American Geosciences Institute IF/THEN® Website AAAS IF/THEN® Ambassadors Earth Science Week

Lyda Hill Philanthropies, Nautilus, and the American Geosciences Institute are proud to collaborate through Earth Science Week to advance the vision of IF/THEN®, an initiative of Lyda Hill Philanthropies in promoting girls and women in STEM (science, technology, engineering, and mathematics).

This project is funded as part of IF/THEN®, an initiative of the Lyda Hill Philanthropies, and celebrates a continuing emphasis for Earth Science Week with profiles of some of today's leading women geoscientists (see below).

Our hope is that these trailblazing scientists' stories provide inspiration to geoscience students, professionals, and enthusiasts everywhere. In addition, this website provides curriculum connections linked to profiles of women who are among today's leading geoscientists.

These activities serve as exciting "jumping-off points" for educators and students to further explore the geosciences—the infinite interactions of natural systems and processes that make up our geosphere, atmosphere, hydrosphere, and biosphere. Click on each scientist below to learn about her work and how you can explore related geoscience topics. See Nautilus: Geoscience Women in STEM to read detailed interviews with all four women, and watch NGSS-ESS Webinar: Promoting Diversity in the Geosciences - Meet the Geoscience Women in STEM to view a webinar on educational activities inspired by their work.

 Hope Jahren Geochemist / Geobiologist Hope is a renowned expert in the chemical makeup of plants and trees. She is also author of "Lab Girl." Read More...	 Shyla Raghav Climate Policy AAAS IF/THEN® Ambassador Shyla is Vice President of Climate for Conservation International and an expert on the impact of climate change on people and nature. Read More...
 Jessica Esquivel Particle Physicist AAAS IF/THEN® Ambassador Jessica is a Postdoctoral Research Associate at Fermi National Accelerator Laboratory researching the electron's heavier sibling, the muon. Read More...	 Jasmine Sadler Entrepreneur AAAS IF/THEN® Ambassador Jasmine is an entrepreneur who is CEO of The STEAM Collaborative. Trained as an aerospace engineering and an MBA, she educates children and their parents about STEM from an artistic perspective. Read More...

EARTH SCIENCE WEEK

- Engaged more than 30 existing and new organizational partners in the 23rd annual Earth Science Week celebration, promoting the theme of “Earth Materials in Our Lives” with online resources, materials, events, and activities across the country and around the world.
- Collaborated with the Mineralogical Society of America and additional partners, to launch the first-ever Minerals Day to raise awareness of and appreciation for minerals.
- Presented the “Earth Materials Frontiers” Webinar Series featuring nine informative, timely presentations on raw materials by experts, available online in 62 languages with multilingual captioning.
- Conducted Earth Science Week’s annual photo, video, visual arts, and essay contests, drawing entries from around the globe offering creative, thoughtful perspectives on issues related to raw materials.



EARTH SCIENCE WEEK





SCHOLARLY INFORMATION

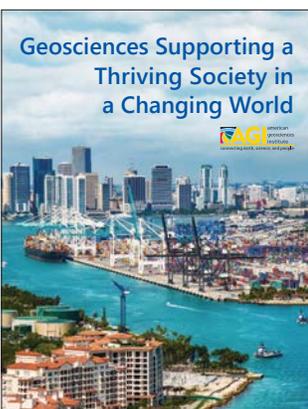
- Continued uninterrupted production of GeoRef, the primary bibliographic database covering the geoscience literature, currently containing references to more than 4.2 million publications in more than 44 languages and published in more than 100 countries, with more than 2,000 geoscience organization subscribers worldwide.
- Expanded AGI's collection of specialty bibliographic databases to nine, now including the Midwest Geological Sequestration Consortium Research Publications Database, which documents the publications produced as a result of research stemming from the U.S. Department of Energy-funded Consortium.
- Explored automation of text translation as part of the processing of geoscience literature for GeoRef — including titles of roughly 30,000 publications in prominent European languages automatically translated to English for editorial staff — to assist researchers in locating relevant publications.





GEOSCIENCE POLICY

- Created *Geosciences Supporting a Thriving Society in a Changing World* — the quadrennial “critical needs” document authored by representatives from AGI member societies to recommend ways that geoscience and address national priorities for the next administration — and disseminated the publication widely, including to both presidential campaigns and over 50 House and Senate geoscience-related committee chairs and minority leaders.



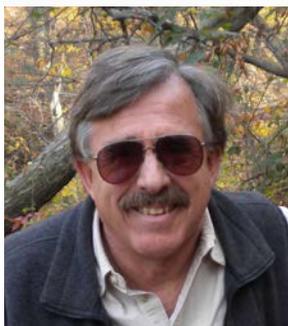
- Virtually hosted four summer policy interns, who advanced efforts including an AGI Critical Issues project to reimagine state geologic factsheets and Paleontological Society-sponsored project to explore best practices in data preservation. Pictured, clockwise from top left: **Lyndsey Farrar, Stephanie Plaza-Torres, Emilie Sinkler** and **Anthony Guajardo**.

- Named **Jakob Lindaas** as the 2020-2021 William L. Fisher Congressional Geoscience Fellow, enabling the Colorado State University Ph.D. student in Atmospheric Science to spend a year working as a congressional staff member, learning about the legislative process, and contributing scientific expertise.



RECOGNITION OF EXCELLENCE

- Honored **Dr. James M. Robertson**, recently retired State Geologist and Director of the Wisconsin Geological and Natural History Survey, as the 2020 recipient of the AGI Medal in Memory of Ian Campbell for Superlative Service to the Geosciences, AGI's highest award.



- Awarded **Dr. Sharon Mosher**, Professor and William Stamps Farish Chair in Geology at the Jackson School of Geosciences at the University of Texas at Austin, the 2020 Marcus Milling Legendary Geoscientist Medal.



- Recognized **Dr. Peter Folger**, Specialist in Energy and Natural Resources Policy for the Congressional Research Service of the Library of Congress, as the 2020 recipient of the AGI Award for Outstanding Contribution to the Public Understanding of the Geosciences.



- Presented **Sherry Clafin**, an eighth-grade Earth science teacher at White Cloud Junior High School in White Cloud, Michigan, with the 2020 Edward C. Roy Jr. Award for Excellence in K-8 Earth Science Teaching.



- Celebrated **Dr. Rebecca L. Dodge**, Professor Emeritus at Midwestern State University, as the 2020 recipient of the William B. Heroy Jr. Award for Distinguished Service to AGI.





NEW TO THE FEDERATION

- Welcomed the Japanese Society of Geo-Pollution Science, Medical Geology and Urban Geology (PMUG) as an AGI International Associate. PMUG, which is based in Japan, envisions a society based on sustainable development.
- Also welcomed Earth Science Information Partners (ESIP) as an AGI Liaison Organization. ESIP is a nonprofit, volunteer, and community-driven organization that advances the use of Earth science data through meetings and virtual collaborations focused on Earth science data-related topics.



SUPPORT THE GEOSCIENCES

Be a champion for AGI partnerships that enrich geoscience education, workforce, policy, scholarly information, recognition of excellence, and related efforts. Join us in this vital work. Please give at <https://www.americangeosciences.org/donate>



FINANCIAL STATEMENT (UNAUDITED)

American Geosciences Institute
Fiscal Year 2020 (Oct 2019-Sept 2020)

<u>ASSETS</u>	<u>2020</u>	<u>2019</u>
Current assets		
Cash and cash equivalents	\$1,756,191.98	\$870,132.63
Marketable securities		
Accounts receivable	\$841,835.56	\$638,292.80
Prepaid expenses and advances	\$15,168.78	\$20,910.89
Inventory of publications	\$13,209.13	\$13,209.13
Total current assets	\$2,626,405.45	\$1,542,545.45
Property and equipment		
Building and improvements	\$2,702,403.74	\$2,836,214.66
Furniture and equipment	\$626,218.94	\$771,211.94
Land	\$525,031.94	\$525,031.94
Net property and equipment	\$3,853,654.62	\$4,132,458.54
Other assets		
Long term securities		\$192,207.09
Trademark	\$108,540.00	\$108,540.00
GeoRef database	\$4,500,000.00	\$4,500,000.00
Software net amortization		\$11,480.00
Mineral displays	\$13,362.52	\$13,362.52
Total other assets	\$4,621,902.52	\$4,825,589.61
Total assets	\$11,101,962.59	\$10,500,593.60
 <u>LIABILITIES AND NET ASSETS</u>		
Current liabilities		
Accounts payable and accrued expenses	\$308,736.38	\$857,384.40
Advance subscription and project income	\$159,171.30	\$206,052.55
Accrued vacation	\$257,757.53	\$227,371.00
Total current liabilities	\$725,665.21	\$1,290,807.95
Long term liabilities		
Long term loans	\$2,203,967.66	\$1,435,137.46
Total long term liabilities	\$2,203,967.66	\$1,435,137.46
Net assets		
Unrestricted	\$7,774,648.19	\$7,331,036.85
Temporarily restricted	\$397,681.53	\$443,611.34
Total net assets	\$8,172,329.72	\$7,774,648.19
Total liabilities and net assets	\$11,101,962.59	\$10,500,593.60

AGI EXECUTIVE COMMITTEE, 2019–2020



Carolyn G. Olson
President



David R. Wunsch
President-Elect
Credit: Ambre Alexander/Delaware
Geological Survey



Dennis J. Anderson
Treasurer



Anna C. Shaughnessy
Secretary



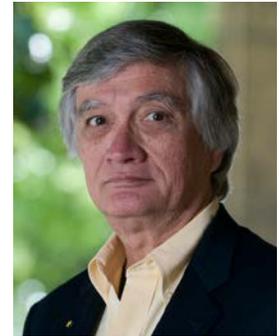
Jonathan D. Arthur
Member at Large



Susan M. Sullivan
Member at Large



Paul Weimer
Member at Large



Rodney C. Ewing
Past-President



Daniel D. Domeracki
AGI Foundation Chair



Sharon N. Tahirkheli
Interim Executive Director
Credit: Shaun Hardy

Ex Officio members:

AGI MEMBER SOCIETIES

With Member Society Representatives

AASP — The Palynological Society Fredrick Rich	Geo-Institute of the American Society of Civil Engineers Roman Hryciw	National Ground Water Association Terry Morse
American Association of Geographers Gary Langham	Geochemical Society Kevin Johnson	National Speleological Society David Decker
American Association of Petroleum Geologists David Curtiss	Geological Association of Canada Dène Tarkyth	Paleobotanical Section of the Botanical Society of America Robert Gastaldo
American Geophysical Union Billy Williams	Geological Society of America Don Siegel	Paleontological Research Institution Warren Allmon
American Institute of Hydrology (vacant)	Geological Society of London Richard Hughes	Paleontological Society Bruce MacFadden
American Institute of Professional Geologists Wendy Davidson	Geoscience Information Society Chris Badurek	Petroleum History Institute Jeff Spencer
American Meteorological Society Keith Seitter	History of Earth Sciences Society Renée Clary	Seismological Society of America Nan Broadbent
American Rock Mechanics Association Peter Smeallie	International Association of Hydrogeologists/U.S. Natl. Chapter Timothy Parker	SEPM (Society for Sedimentary Geology) Howard Harper
Association for the Sciences of Limnology and Oceanography Adrienne Sponberg	International Medical Geology Association Ester Sztejn	Society for Mining, Metallurgy & Exploration L. Harvey Thorleifson
Association for Women Geoscientists Noelia Beatriz Carmona	Karst Waters Institute Harvey DuChene	Society of Economic Geologists Brian Hoal
Association of American State Geologists John Yellich	Mineralogical Society of America Ann E. Benbow	Society of Exploration Geophysicists John Koehr
Association of Earth Science Editors Rex Buchanan	Mineralogical Society of Great Britain and Ireland Hilary Downes	Society of Independent Professional Earth Scientists Tom Pronold
Association of Environmental & Engineering Geologists Kristy Howard	National Association of Black Geoscientists Tomieka Searcy	Society of Mineral Museum Professionals Katherine Dunnell
Clay Minerals Society Debora Berti	National Association of Geoscience Teachers Margaret Crowder	Society of Vertebrate Paleontology Ted Vlamis
Council on Undergraduate Research, Geosciences Division Mark Lord	National Association of State Boards of Geology Deana Sneyd	Soil Science Society of America April Ulery
Environmental and Engineering Geophysical Society Laura Sherrod	National Cave and Karst Research Institute George Veni	The Society for Organic Petrology Prasanta Mukhopadhyay
	National Earth Science Teachers Association Cheryl Manning	United States Permafrost Association Julie Brigham-Grette



Credit: Sharon Tahirkheli



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