DR. MARK ALAN HELPER

Curriculum Vitae — Fall 2026

Department of Earth and Planetary Sciences | Jackson School of Geosciences | The University of Texas at Austin
Austin, Texas 78712 | Office: 512/471-1009 | Email: helper@jsg.utexas.edu | Licensed Professional Geoscientist (TX #4010)

PERSONAL DATA

Born: January 20, 1956 (Urbana, Illinois) | Citizenship: U.S. Citizen | Family: Married, 2 children

FIELDS OF INTEREST

Tectonics, Metamorphic Petrology, Isotope Geochronology, Gemology, Lunar Geology, Field Geology, Geographic Information Systems (GIS)

EDUCATION

- **Ph.D. in Geology,** University of Texas at Austin. Dissertation: "Structural, metamorphic and geochronologic constraints on the origin of the Condrey Mountain Schist, north central Klamath Mountains, northern California" (Advisor: John C. Maxwell) *(1985)*
- **Graduate Coursework,** University of Oregon, Eugene, Oregon *(1978–1979)*
- **B.S. in Geology,** University of Illinois, Urbana. Thesis: "Structural and petrographic study of the Monian (Precambrian) rocks of the Rhoscolyn District, Holy Island, Anglesey, North Wales" (Advisor: Dennis S. Wood) *(1978)*

PROFESSIONAL EMPLOYMENT

- **Faculty Associate,** Bureau of Economic Geology, University of Texas at Austin. Field mapping and compilation of digital geologic map GIS databases for STATEMAP *(2023–Present)*
- **Distinguished Senior Lecturer Emerita,** Department of Earth and Space Sciences, UT Austin. Guest instruction, collaborative research, NASA activities *(2022–Present)*
- **Distinguished Senior Lecturer,** Department of Geological Sciences, UT Austin. Courses in Field Methods, Field Geology, Gemology, GIS/GPS. Field Camp Director. Proterozoic/Laramide tectonics, subduction complexes. NASA astronaut training & robotic testing *(2007–2022)*
- **Senior Lecturer,** Department of Geological Sciences, UT Austin *(2000–2007)*
- **Lecturer,** Department of Geological Sciences, UT Austin *(1986–1999)*
- **Geological Consultant,** Licensed Professional Geoscientist (#4010, State of Texas). Schlumberger, US Borax, Elegant Marble Imports, D.B. Stevens *(1991–Present)*
- **Assistant Instructor,** University of Texas at Austin *(1984–1985)*
- **Teaching Assistant,** University of Texas at Austin *(1980–1982)*
- **Field Geologist,** Arco Exploration Co., Denver, CO (Montana Overthrust Belt) *(Summer 1982)*
- **Field Geologist,** California Division of Mines and Geology, Sacramento, CA (Central Klamath Mts.) *(Summer 1981)*
- **Field Assistant,** U.S. Geological Survey, Menlo Park, CA (Marble & Condrey Mt. Wilderness Areas) *(Summer 1980)*

- **Research Assistant,** Texas Bureau of Economic Geology, Austin, TX (Gulf Coast oil/gas production) *(1979–1980)*
- **Petroleum Geologist Intern,** Exxon Co. USA, Oklahoma City, OK (Ardmore & Marietta Basins) *(Summer 1979)*
- **Petroleum Geologist Intern,** Exxon Co. USA, Katy, TX (Gulf Coast gas fields) *(Summer 1978)*
- **Research Assistant,** Illinois State Geological Survey, Quaternary Research Div., Urbana, IL *(Spring 1978)*

AWARDS & HONORS

- **Fellow,** Geological Society of America *(2024)*
- **Kniebel Distinguished Teaching Award** (Undergraduate Teaching Excellence) *(2020–2021, 2017–2018, 2011–2012, 2007–2008, 2004–2005, 1994–1995)*
- **Jackson School Outstanding Educator Award,** UT Austin *(2011)*
- **Phi Beta Kappa Alpha of Texas Award** for Distinction in Teaching *(2004)*
- **Houston Oil and Minerals Faculty Excellence Award,** UT Austin *(2003)*
- **College of Natural Sciences Teaching Excellence Award,** UT Austin *(2002)*
- **Best Educational Resource Award,** Lightspan StudyWeb and StudySphere *(2001, 2006)*
- **Virtual Geoscience Professor Site of the Month** *(1998, 1999)*
- **Miningco.com Award** for Best World Wide Web Mineralogy Site *(1998)*
- **Guest Coach,** Lady Longhorns *(1997)*
- **American Federation of Mineralogical Societies** Honorary Scholarship Award *(1996)*
- **Antarctic Service Medal,** U.S. Antarctic Program *(1995)*
- **Shell Graduate Student Fellowship,** UT Austin *(1983–1984)*
- **University of Texas Professional Development Award,** UT Austin *(1983)*
- **Arco Graduate Student Fellowship,** UT Austin *(1982–1983)*
- **Sigma Xi,** Member *(1981–Present)*
- **Phi Kappa Phi Honor Society,** Member *(1980–2020)*

FIELD EXPERIENCE & EXPEDITIONS

- **Organized Field Trip Leadership/Participation:** Dolomites & Oman Mts. (2026); Argentine Andes (2017); San Luis Basin & W. Newfoundland (2016); Svalbard/Spitsbergen & Scotia Arc (2013); Atacama Basin, Chile (2008); Sentinel-Arlington Volcanic Field (2007, 2008); Uinta Mts. (2005); Death Valley (2000); N. & C. New Mexico (1994); Colorado River Extensional Corridor (1992); CA&OR Coast Ranges (1982, 1986, 2007); Klamath Mts. (1979, 1992); Ouachita Mts. (1980, 1982); Trans-Pecos (1978, 1984, 1990, 1993, 1998); Marquette Trough (1976); Smoky Mts. (1975); W. US Cordillera (1985–present)
- **Grant-Related Field Work:** Kenai Peninsula/Chugach Mountains, Alaska *(2018–2023)*
- **Grant-Related Field Work:** Turkana, western Kenya *(2015)*
- **NASA Astronaut Field Training:** Central and Northern New Mexico *(2009–2022)*
- **Research Field Work:** Devon Island, Canadian Arctic *(2009)*
- **Research Field Work:** Trans-Pecos Texas *(2008–Present)*
- **Research Field Work:** Sentinel-Arlington Volcanic Field, Gila Bend, Arizona *(2007)*
- **Research Field Work:** Tamaulipas, Mexico *(2005, 2006)*
- **NSF Field Work:** Heimefrontfjella, Dronning Maud Land, Antarctica *(1996–1997)*
- **NSF Field Work:** Caborca, Sonora, Mexico *(1994)*

- **NSF Field Work:** Shackleton Range and Coats Land, Antarctica *(1993–1994)*
- **Research Field Work:** Llano Uplift, Central Texas *(1992–Present)*
- **UT Field & Stratigraphic Methods:** Central Texas (TA, Assistant Instructor, Lecturer, Sr. Lecturer) *(1982–2022)*
- **UT Summer Field Camp Director/Instructor:** Texas, New Mexico, Arizona, Colorado, Utah, Montana, Wyoming, Idaho *(1981–2022, 2027)*
- **Research Field Work:** Northern Apennines, Italy *(Summer 1985)*
- **Research Field Work:** Narragansett Basin, Rhode Island *(Summer 1984)*
- **Research Field Work:** Western Montana Overthrust Belt *(Summer 1982)*
- **Research Field Work:** California Coast Ranges *(1982)*
- **Research & Dissertation Work:** Klamath Mts. & N. Coast Ranges, CA & OR *(1980–1987, 2007, 2016, 2017, 2019)*
- **Field Work:** Central Coast Ranges & Cascade Mts., Oregon *(Spring 1980)*
- **B.S. Thesis Field Work:** Holy Island, North Wales, U.K. *(Summer 1977)*
- **Student Field Camps:** British Isles Field Camp (1977); University of Illinois Field Camp, Wyoming (1976)

PROFESSIONAL SERVICES & NASA ACTIVITIES

- **Lead Instructor / Co-organizer:** Field and classroom geology training for 2022 Astronaut Candidate class, Johnson Space Center & Taos/Questa, NM *(Sep 2022)*
- **Grant Review Panelist:** NASA SSERVI Panel *(Spring 2019)*
- **Lead Instructor / Organizer:** Geology training for 2017 Astronaut Candidate class, Johnson Space Center & Taos/Questa, NM *(Oct 2017–Jun 2018)*
- **Invited Speaker & Co-Lead:** LEAG Geologic Astronaut Training Special Action Team workshop, Goddard Space Flight Center *(Jan 2016)*
- **Lead Instructor / Organizer:** Field geology training for 2013 Astronaut Candidate class, Questa, NM *(Jul 2014)*
- **Classroom Instructor:** Geology training for 2013 Astronaut Candidate Class, Johnson Space Center *(Jun 2014)*
- **Panel Member:** NASA MMAMA Grant Review Panel *(Spring 2010, Fall 2012)*
- **Grant Review Panelist:** NSF SEES Panel *(Spring 2012)*
- **Instructor:** NASA Astronaut Field Geology Training, Los Alamos/Gila Bend/Questa *(2008, 2009, 2010, 2011, 2012, 2013, 2015)*
- **Science Staff:** Operational Reconnaissance Testing of K-10 rovers & EVA planning, Ames Research Center *(2008–2010)*
- **Invited Participant:** NASA Constellation Program Astronaut Curriculum Development & LPI Workshops *(2008–2009)*
- **Session Co-Chairman:** AAPG Annual Conference ('Lunar Field Exploration Equipment') *(2009)*
- **Co-Convener & Fieldtrip Leader:** GSA Annual Meeting ('Role of Field Geology in Return to Moon' & 'Precambrian of Llano Uplift') *(2008)*
- **Co-Chair:** FEAT (Lunar Field Exploration and Analysis Team) *(2006–2018)*
- **Member:** NASA Human Exploration of Mars Science Advisory Group (HEM-SAG) *(2006–2007)*
- **Session Convener:** Lunar Exploration Advisory Group (LEAG) Biannual Meeting *(2007)*

- **Co-organizer & Instructor:** Field Conference on Best Practice for Geologic Field Work, Tucson, AZ *(2007)*
- **Question Writer:** Educational Testing Service, Geology G.R.E. *(2001–2002)*
- **Guidebook Author & Leader:** Austin Geological Society Annual Fieldtrip (Llano Uplift) *(2000)*
- **Co-convener:** GSA Cordilleran Section Symposium ('Mesozoic Geology of Klamath Mts.') *(1992)*
- **Session Chairman:** GSA Cordilleran Section & Annual Meetings *(1986)*
- **Journal & Proposal Reviewer:** GSA Bulletin, G^3, Geology, American Mineralogist, J. of Geology, J. of Metamorphic Geology, Applied Spectroscopy, Tectonics, Advances in Space Research, NSF, ACS, NASA

TEACHING ACTIVITIES & ONLINE RESOURCES

- **Courses Taught:** GEO347K: Gems and Gem Minerals (42 sems); GEO420K: Intro to Field & Stratigraphic Methods (32 sems); GEO660: Field Geology (32 summer sessions); GEO327G/386G: GIS & GPS Applications in Earth Sciences (25 sems); GEO298T: Supervised Teaching (13 sems); GEO110C/310C/371C: Conference Courses (10 sems); GEO379H: Honors Tutorial (5 sems); GEO392M: Modern Geological Sciences (5 sems); GEO379K: Special Studies (3 sems)
- **Peer-Reviewed NAGT Teaching Resources:** Helper, M.A. (2020), Geologic Mapping of a Virtual Landscape I & II; Helper, M.A. (2010), Spatial Analysis of Raster Data - An Antarctic Example. All are part of the On the Cutting Edge Exemplary Teaching Activity collection.
- **Web Site Development:** Created and maintained core course websites for GEO371C, GEO420K, GEO660, and GEO347K (award-winning mineralogy resource).

GRADUATE & UNDERGRADUATE STUDENT SUPERVISION

- **Ph.D. Dissertation committees (8):** Hufford, L.J. (2024); Doungkaew, N. (2022); Tewksbury-Christle, C. (2021); Capaldi, T. (2019); Gary, M. (2010); Beam, E. (1996); Hoak, T.E. (1993); Fullmer, S. (2025)
- **M.S. Theses committees (22):** Crues, A.G. (2022); Chen, M. (2021); Hirtz, J. (2021); Clowe, T. (2017); Hundley, T. (2016); Claus, V. (2014); Swanson, T. (2012); Edlam, N. (2012); Baitis, E. (2011); Andring, M. (2010); Hatley, E. (2010); Carter, M. (2008); Davis, B. (2007); Wiles, T. (2007); Fuller, R. (2004); McGuire, J.B. (2003); Hoh, A. (2000); Hunt, B.B. (2000); Rico, L. (1999); Zumbro, J. (1999); Rougvie, J. (1993); Fuqua, D.A. (1990); Gillis, G.M. (1989); Hall, M.S. (1988)
- **Undergraduate Senior Theses Supervised (12):** Yeat, I. (2015); Altobelli, M. (2011); Collins, A. (2008); Knowles, J. (2008); Wu, C. (2008); Kilventon, D. (2006); Schmid, D. (2005); North, E. (1999); Schaffer, J.E. (1997); Hunt, B.B. (1996); Bustos, J.A. (1992); Chernoff, C.B. (1992)
- **Undergraduate Thesis Committees (9):** Nicholaides, K. (2018); Black, C. (2017); Ortega-Arroya, D. (2017); Frier, R. (2016); Especial, P. (2013); Shin, T. (2012); Robertson, W.M. (2006); Gordon, C. (2004); North, E. (2002)

ADMINISTRATIVE & DEPARTMENTAL SERVICE

- **Provost Review Committee** of the Undergraduate School *(2019–2020)*
- **JSG Undergraduate Advising Committee,** UT Austin *(2017–2022)*
- **University Committee** on Non-Tenure Track Faculty *(2017–2019)*
- **University Committee** on Undergraduate Independent Inquiry Flags *(2016–2019)*
- **Information Technology Steering Committee,** UT Austin *(2007–2014)*
- **Undergraduate Admissions Committee,** UT Austin *(2006–2012)*

- **UT GIS Committee** (Working Group Chair) *(2009–2011)*
- **Ad-hoc Undergraduate Equipment Committee** (Chair) *(2009–2010)*
- **B.S. General Geology Curriculum Revision Committee** *(2007–2009)*
- **Geoscience Education Faculty Search Committee** *(2007–2008)*
- **Strategic Planning Committee** for Undergraduate Education *(2006)*
- **Field Camp Director:** Organize and run six-week field course (GEO660) *(1996–2022)*
- **Oversight of Departmental Vehicles Fleet** (10 vehicles) & field equipment *(1996–2022)*
- **Acting Curator** of Departmental Gem & Mineral Collections *(1996–2022)*
- **Examining Member** for Ph.D. Qualifying Exams *(1996–2022)*
- **Ex-officio Member,** Undergraduate Advising & Awards Committee *(1997–2015)*
- **College Representative,** CNS Field Safety Committee *(1998–2000)*
- **Hallway Mineral Displays Installation,** Jackson Geoscience Building *(2002–2023)*
- **Outreach Presenter & Speaker:** ExploreUT (2001–2022), UT Interactive (1999), Hot Science-Cool Talks (2000, 2012)

INVITED CONFERENCE, WORKSHOPS & LECTURES

- **NAGT Webinar:** "Using Virtual Landscapes for Remote Teaching" *(Jun 2020)*
- **NAGT/GSA Workshops:** Designing Remote Geology Field Courses *(Mar–Jun 2020)*
- **NASA Goddard Workshop:** LEAG Geologic Astronaut Training Special Action Team *(Jan 2016)*
- **Public Outreach Lecture:** "Astronauts, Robots and Rocks: Preparing for Geologic Planetary Exploration", ESI Hot Science-Cool Talks *(Fall 2011)*
- **NSF Cutting Edge Workshop:** Using GIS and Remote Sensing to Teach Geosciences, Bozeman, MT *(2010)*
- **NASA Ames:** Operational Reconnaissance Testing of K-10 rovers & EVA planning *(2008)*
- **NASA Workshops:** Lunar surface site EVA planning & Apollo astronaut geological training *(2008)*
- **LEAG Workshop:** Enabling Exploration: The Lunar Outpost and Beyond, Houston, TX *(2007)*
- **NASA Advisory Council Workshop:** Science Associated with Lunar Exploration Architecture, Tempe, AZ *(2007)*
- **NSF Workshop on Geopads:** Applications of Tablet Computing in Field Geology, Bozeman, MT *(2007)*
- **Lectures:** UT Deans Scholars (2006); Austin Geological Society (2005); UT Freshman Forum (2004, 2005)
- **Invited Speaker:** GSA Annual Meeting, Reno, NV (Mesoproterozoic tectonism in Antarctica) *(Oct 2000)*
- **Invited Lectures:** Baylor University (1992, 1999); Texas Tech University (1992); University of New Orleans (1989)

PUBLICATIONS — REFEREED JOURNAL ARTICLES & MAPS

- **Akker, I.V., Behr, W.M., Fellin, M.G., Hinshaw, E.M., Morales, L., Braden, Z., Helper, M., Hufford, L., Rast, M., and Tavazzani,** "Timing and style of tectonic assembly and exhumation of the McHugh Complex within the Chugach-Kodiak accretionary wedge, Alaska", Tectonics, v. 45, DOI: 10.1029/2025TC009004. *(2026)*
- **Hatley, E.R., Stuwe, K., Helper, M.A., and Carlson, W.D.,** "Kinematics of the Plattengneis Shear Zone, Koralpe, Eastern Alps. Constraints from Quartz Lattice Preferred Orientation", Austrian Journal of Earth Sciences, v. 118, p. 157-174. *(2025)*
- **Hunt, B.B., Rudine, S. and Helper, M.A.,** "Geologic Map of the Central Davis Mountains, Jeff Davis County, Texas", UT Austin BEG Open-File Map OFM0309, scale 1:50,000. *(2025)*

- **Helper, M.A., Hunt, B.B. and Droddy M.J. Jr.,** "Bedrock Geologic Map of the Fly Gap Quadrangle, Mason County, Texas", UT Austin BEG Open-File Map OFM00301, scale 1:24,000. *(2025)*
- **Hunt, B.B. and Helper, M.A.,** "Geologic Map of the Gorman Falls Quadrangle, San Saba, Lampasas and Burnet Counties, Texas", UT Austin BEG Open-File Map OFM00302, scale 1:24,000. *(2025)*
- **Hunt, B.B., Helper, M.A., Horne, E.A., Hennings, P.H., Rhoden, E.,** "Geologic Map of the Toyahvale Quadrangle, Jeff Davis and Reeves Counties, Texas", UT Austin BEG Open-File Map OFM00303, scale 1:24,000. *(2025)*
- **Tewksbury-Christle, C. M., Behr, W. M., Helper, M. A., and Stockli, D. F.,** "Tectonic evolution of the Condrey Mountain Schist: An intact record of Late Jurassic to Early Cretaceous Franciscan subduction and underplating", Tectonics, 43, https://doi.org/10.1029/2023TC008115. *(2024)*
- **Hassan, S.M., de Wit, M. J., Helper, M.A. and Hussein, A.W.,** "Sedimentology of alluvial fan deposits near Nature's Valley, South Africa", Journal of African Earth Sciences, https://doi.org/10.1016/j.jafrearsci.2024.105301. *(2024)*
- **Hunt, B.B., Helper, M.A., Mutis-Duplat, E., Gray, M.,** "Geologic map of the Loyal Valley Quadrangle, Mason County, Texas", UT Austin BEG Open-File Map OFM0289, scale 1:24,000. *(2024)*
- **Hunt, B.B., and Helper, M.A.,** "Geologic map of the Black Gap Area and Sierra Del Carmen Mountains, Trans-Pecos, Texas", UT Austin BEG Open-File Map OFM0294, scale 1:50,000. *(2024)*
- **Hunt, B.B. and Helper, M.A.,** "Geologic map of the Oasis Ranch Quadrangle, Terrell County, Texas", UT Austin BEG Open-File Map OFM0290, scale 1:24,000. *(2024)*
- **Hunt, B.B. and Helper, M.A.,** "Geologic map of the Art Quadrangle, Mason County, Texas", UT Austin BEG Open-File Map OFM0288, scale 1:24,000. *(2024)*
- **Klehm, C.E, Helper, M.A., Hildebrand, E., Grillo, K.M. and Ndeiema, E.,** "Mineralogy and sourcing of a stone bead industry found in communal cemeteries associated with eastern Africa's first pastoralists, ca. 5000 BP", Journal of Field Archaeology, 48(6), 395-414. *(2023)*
- **Helper, M.A., Hunt, B.B. and Barnes, V.E.,** "Geologic map of a portion of the southeastern Llano Uplift", UT Austin BEG Open-File Map OFM0277, scale 1:50,000. *(2023)*
- **Rendall, B., Wilson, K., Kerans, C., Helper, M. and Mohrig, D.,** "Coriolis effect recorded in Late Pleistocene Stage 5e Bahamian aeolianites", Geology, v. 50, https://doi.org/10.1130/G49454.1. *(2022)*
- **Guinn, N., Gardner, J., and Helper, M.A.,** "Dynamic pressure evolution within the 18 May 1980 Mount St. Helens pyroclastic density current: evidence from tree damage", Bulletin of Volcanology, 84, https://doi.org/10.1007/s00445-022-01548-6. *(2022)*
- **Hunt, B. B., Johnson, B., Helper, M.A., and Droxler, A.,** "Geologic map of the Mason quadrangle, Mason County, Texas", UT Austin BEG Open-File Map OFM0260, scale 1:24,000. *(2022)*
- **Hunt, B. B., Johnson, B., Helper, M.A., and Droxler, A.,** "Geologic map of the Turtle Creek quadrangle, Mason County, Texas", UT Austin BEG Open-File Map OFM0259, scale 1:24,000. *(2022)*
- **Tewksbury-Christle, C. M., Behr, W. M., & Helper, M. A.,** "Tracking deep sediment underplating in a fossil subduction margin: Implications for interface rheology and mass and volatile recycling", Geochemistry, Geophysics, Geosystems, v. 22, e2020GC009463. *(2021)*
- **Hunt, B. B., Paine, J. G., Woodruff, C. M. Jr., and Helper, M. A.,** "Integrating digital and traditional field methods into geologic mapping: An example from Central Texas", GeoGulf Transactions, v. 71, p. 141-148. *(2021)*
- **Hunt, B. B., Johnson, B., and Helper, M.,** "Geologic map of the Grit quadrangle, Mason County, Texas", UT Austin BEG Open-File Map OFM0252, scale 1:24,000. *(2021)*

- **Clow, T., Behr, W.M., Helper, M. A.,** "Pleistocene to recent geomorphic and incision history of the northern Rio Grande river gorge, New Mexico", Geosphere, v. 15, no. 3, p. 820-838. *(2019)*
- **Gardner, J.E., Nazworth, C., Helper, M.A., and Andrews, B. J.,** "Inferring the nature of pyroclastic density currents from tree damage: The 18 May 1980 blast surge of Mount Saint Helens", Geology, v. 46, 795-798. *(2018)*
- **Hildebrand, E.A., Grillo, K.M., Sawchuck, E.A., Pfeiffer, S.K. et al.,** "A monumental cemetery built by eastern Africa's first herders near Lake Turkana, Kenya", PNAS, v. 115, p. 8942-8947. *(2018)*
- **Eppler, D., Evans, C., Tewksbury B., Helper, M., Bleacher, J., Fossum, M., Ross, D., Feustel, D.,** "Geologic training for America's astronauts", GSA Today, v. 26, no. 8, p. 34-35. *(2016)*
- **Svoboda, C., Helper, M.A. and Hunt, B.B.,** "Central Texas GIS Geologic Map Project: Phase I", Barton Springs Edwards Aquifer Conservation District Tech Note 2014-1201. *(2014)*
- **Hasan, S.M., Steel, R.J., El Barkooky, A., Hamdan, M., Olariu, C., and Helper, M.A.,** "Stacked, Lower Miocene tide dominated estuary deposits in a transgressive succession, Western Desert, Egypt", Sedimentary Geology, v. 282, p. 241-255. *(2012)*
- **Schmitt, H.H., Snoke, A.W., Helper, M.A., Hurtado, J.M., Hodges, K.V., and Rice, J.W.,** "Motives, methods and essential preparation for planetary field geology on Moon and Mars", GSA Special Paper 483, p. 1-15. *(2011)*
- **Fong, T., Bualat, M., Deans, M.C., and 33 others,** "Robotic Follow-up for Human Exploration", AIAA Paper 8605, p. 1-24. *(2010)*
- **Barnes, C. G., Donato, M. M., Yule, J. D., Thomlinson, S. L., Harper, G. D., Thompson, A. G., and Helper, M. A.,** "Correlation of Mesozoic terranes in the northern and central Klamath Mountains", GSA Bulletin, v. 114. *(2002)*
- **Helper, M. A.,** "Geology of the eastern Llano uplift", Austin Geological Society Guidebook 20, p. 33-47. *(2000)*
- **Roback, R. C., Hunt, B. B., and Helper, M. A.,** "Mesoproterozoic tectonic evolution of the western Llano uplift, central Texas: the story in an outcrop", Rocky Mountain Geology, v. 34, p. 275-287. *(1999)*
- **Reed, R. M., Roback, R. C., and Helper, M. A.,** "Nature and age of ductile deformation associated with the 'anorogenic' Town Mountain Granite, Llano Uplift, Central Texas", Basement Tectonics, 12, p. 291-292. *(1998)*
- **Gose, W. A., Helper, M. A., Connelly, J. N., Hutson, F. E., and Dalziel, I. W. D.,** "Paleomagnetic data and U-Pb isotopic age determinations from Coats Land, Antarctica: Implications for late Proterozoic plate reconstructions", Journal of Geophysical Research, v. 102, p. 7887-7902. *(1997)*
- **Hutson, F., Helper, M. A., Dalziel, I. W. D. and Grimes,** "Initial results of geologic investigations in the Shackleton Range and southern Coats Land Nunataks, Antarctica", Antarctic Journal of the United States, v. 32, p. 234-236. *(1997)*
- **Barnes, C. G., Donato, M. M., Barnes, M. A., Yule, J. D., Hacker, B. R., and Helper, M. A.,** "Geochemical compositions of metavolcanic and metasedimentary rocks, Klamath Mountains, Oregon and California", U.S. Geological Survey Open File Report 95-227, 63 p.. *(1995)*
- **Helper, M. A., Hutson, F.E., and Grimes, S.W.,** "Geologic investigations in the Shackleton Range and Coats Land Nunataks, Antarctica", Antarctic Journal of the United States, v. 29, p. 4-6. *(1994)*
- **Dalziel, I. W. D., Helper, M. A., Hutson, F., and Grimes, S.,** "Geologic investigations in the Shackleton Range and Coats Land Nunataks, Antarctica", Antarctic Journal of the United States, v. 29, p. 4-6. *(1994)*

- **Bauer, P. W., Helper, M. A.,** "Geologic Map of Trampas quadrangle, Picuris Mountains, Taos and Rio Arriba Counties, New Mexico", New Mexico Bureau of Mines and Mineral Resources Geologic Map 71, Scale 1:24,000. *(1994)*
- **Folk, R. L., Pursell, V., Greenberg, J., Mosher, S., Helper, M. A., and Carter, K.,** "Inverted tectonic veins in the Triassic Portoro Limestone, Portovenere Area (La Spezia), Italy", Annales Tectonicae, v. 2, p. 25-33. *(1989)*
- **Mosher, S., and Helper, M. A.,** "Chapter 16: Interpretation of polydeformed terranes", Basic Methods of Structural Geology (Prentice-Hall), p. 361-384. *(1988)*
- **Helper, M. A.,** "Deformation and high P/T metamorphism in the central part of the Condrey Mountain window, north-central Klamath Mountains, California and Oregon", GSA Memoir 164, p. 125-142. *(1986)*
- **Coleman, R. G., Helper, M. A., and Donato, M. M.,** "Geologic Map of the Condrey Mountain Roadless Area, Siskiyou County, California", U.S. Geological Survey Miscellaneous Field Study Map MF-1540-A, Scale 1:50,000. *(1983)*
- **Galloway, W. E., Hobday, D. K., Magara, K., Morton, D., Helper, M., Gavenda, V. and Smith, N.,** "Frio Formation of the Texas Gulf Coast Basin--Depositional Systems, Structural Framework, and Hydrocarbon Origin, Migration, Distribution, and Exploration Potential", UT Austin BEG Report of Investigations No. 122, 78 p.. *(1982)*

SELECTED PUBLISHED ABSTRACTS

- **Balakrishnan, M., Hunt, B., Helper, M.,** "Beyond the Published Record: Hidden Legacies of Geologic Field Maps", GSA Abstracts with Programs v. 57, no.6. *(2025)*
- **Akker, I.S., Behr, W.M. et al.,** "Subduction accretion processes of the long-lived Aleutian-Alaskan margin", Gordon Research Conference on Capturing Timescales of Rock Deformation. *(2024)*
- **Tewksbury-Christle, C.M. et al.,** "Tectonic evolution of the Condrey Mountain Schist from Late Jurassic-Early Cretaceous subduction and underplating to Oligo-Miocene exhumation", GSA Penrose Conference. *(2023)*
- **Evans, C. et al.,** "Preparing for lunar exploration: Geology and field training for astronauts", GSA Abstracts with Programs, v. 54, no. 5. *(2022)*
- **Rendall, B. et al.,** "Coriolis effect entombed in Pleistocene Bahamian dune fields", AGU Fall Meeting. *(2020)*
- **Eppler, D.B. et al.,** "Planning Framework for executing lunar scientific exploration", NASA Science Mission Directorate White Paper. *(2020)*
- **Behr, W.M. et al.,** "Coherent underplating vs. subduction channel melange mixing along the deep subduction interface", AGU Fall Meeting. *(2019)*
- **Graff, T.G. et al.,** "Earth and planetary science training for NASA's newest astronauts", 50th Lunar and Planetary Science Conference. *(2019)*
- **Evans, C.A. et al.,** "Field camp for astronauts: NASA's geoscience training program for planetary exploration", AGU Fall Meeting. *(2018)*
- **Deans, M.C. et al.,** "Field Testing Robotic Follow-up For Exploration Field Work", Lunar and Planetary Science Conference, v. 42. *(2011)*
- **Schmitt, H.H. et al.,** "Field Exploration Science for a return to the Moon", AGU Fall Meeting Invited Abstract. *(2006)*
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