



PERSONAL INFORMATION	Libby R.W. Ives, Ph.D. elizabeth.r.ives@jpl.nasa.gov www.glacierseds.com				+1-626-491-5175 (work mobile) https://science.jpl.nasa.gov/people/libby-ives/	
EDUCATION	2021	Ph.D. Geosciences	University of Wisconsin – Milwaukee			
	2016	M.S. Geology	Iowa State University			
	2013	B.S. Earth Science	Northern Michigan University			
GOVERNMENT POSITIONS	2022 – present	JPL Postdoctoral Fellow	Jet Propulsion Laboratory (Pasadena, CA)			
	2022	Geologist	United States Geological Survey (Reston, VA)			
	2021 – 2022	Student Trainee (Geology)	United States Geological Survey (Reston, VA)			
	2018 – 2020	Student/Project Geologist	Wisconsin Geological and Nat. History Survey			
	2020	Hydrologic and Soils Technician	United States Forest Service (St. Ignace, MI)			
ACADEMIC POSITIONS	2019 – 2020	Distinguished Dissertator Fellow	Geosciences	UW – Milwaukee		
	2020	Lecturer	Geosciences	UW – Milwaukee		
	2018 – 2019	Distinguished Graduate Fellow	Geosciences	UW – Milwaukee		
	2017 – 2018	Graduate Research Assistant	Geosciences	UW – Milwaukee		
	2015 – 2016	Graduate Research Assistant	Geology	Iowa State University		
	2015	Graduate Teaching Assistant	Geology	Iowa State University		
	2013 – 2014	Graduate Research Assistant	Geosciences	UW – Milwaukee		
PUBLICATIONS	<p>Ives, L.R.W. and Isbell, J.L. (<i>in review</i>) Glacimarine sedimentation and sequence stratigraphy of the lower Wynyard Formation (Pennsylvanian – Early Permian, Tasmanian Basin). <i>Sedimentary Geology</i>.</p> <p>Ives, L.R.W. and Rawling, J.E. (2022) Pleistocene Geology of Jefferson County, Wisconsin, 1:100,000. Wisconsin Geological and Natural History Survey. https://wgnhs.wisc.edu/catalog/publication/000990 </p> <p>Ives, L.R.W., Isbell, J.L., and Licht, K.J. (2022) A “local first” approach to glacial sediment provenance demonstrated using U-Pb detrital zircon geochronology. <i>The Sedimentary Record</i>. https://doi.org/10.2110/001c.38180 </p> <p>Isbell, J.L.; Vesely, F.F.; Rosa, E.L.M.; Pauls, K.N.; Fedorchuk, N.D.; Ives, L.R.W.; McNall, N.B., Litwin, S.A.; Borucki, M.K.; Malone, J.E.I Kusick, A.R. (2021) Evaluation of physical and chemical proxies used to interpret past glaciations with a focus on the late Paleozoic Ice Age. <i>Earth Science Reviews</i>, 103756. https://doi.org/10.1016/j.earscirev.2021.103756</p> <p>Ives, L.R.W. and J.L. Isbell. (2021) A lithofacies analysis of a South Polar glaciation in the early Permian: Pagoda Formation, Shackleton Glacier region, Antarctica. <i>Journal of Sedimentary Research</i>, 91(6), 611-635. https://doi.org/10.2110/jsr.2021.004</p> <p>Ives, L. R. W. and Iverson, N. R. (2019). Genesis of glacial flutes inferred from observations at Múlajökull, Iceland. <i>Geology</i>, 47(5), 387-390. https://doi.org/10.1130/G45714.1</p>					
TEACHING EXPERIENCE	<p><u>Teaching</u></p> <p>2020 Lecturer Stratigraphy and Sedimentology (Geo Sci 511) UW – Milwaukee</p> <p>2015 TA Surficial Processes (GEOL 479) Iowa State University</p> <p><u>Mentoring and Supervision</u></p> <p>2023 Jet Propulsion Laboratory: Supervised post-baccalaureate intern research on soft sediment deformation of sedimentary rocks in Jezero crater, Mars</p> <p>2022 US Geological Survey: Organized and supervised graduate intern Quaternary mapping fieldwork</p> <p>2014 UW - Milwaukee: Organized and supervised undergraduate research experiences in laboratory and international field work settings</p>					

GRANTS AND
AWARDS

Pending
N/A

Awarded

Fellowships

2019 – 2020	P.E.O. Scholar Award	P.E.O.	\$ 15,000
2019 – 2020	Distinguished Dissertator Fellow	UW – Milwaukee	\$ 16,500
2018 – 2019	Distinguished Graduate Fellow	UW – Milwaukee	\$ 15,000
2015	U.S. Student Visiting Fellow	IRM	\$ 500
2010 – 2013	Presidential Harden Scholar	NMU	Full-tuition

Grants (Sole Writer and Recipient)

2020	Travel Award, SEPM 2020	NSF-ISGC-SEPM	\$ 1,700
2020	Travel Award	SEPM	\$ 300
2019	Travel Grant, GIA Training School	POLENET/NSF	\$ 1,500
2019	Graduate School Conference Travel	UW – Milwaukee	\$ 1,000
2019	Department Travel Award	UW – Milwaukee	\$ 200
2018	Bighorn Basin Field Award	ExxonMobil/GSA	<i>declined</i>
2018	Summer School Travel Grant	IAS	\$ 570
2018	A.L. Medlin Research Scholarship	GSA Energy Division	\$ 1,500
2018	Research Grant	WI Geological Society	\$ 400
2018	Graduate Student Grant	GSA	\$ 1,900
2018	Tinker Research Grant	UWM CLACS	\$ 4,750
2018	Student Travel Grant	North-Central GSA	\$ 125
2014	Graduate Student Grant	GSA	\$ 1,500
2011	Spooner Student Research Grant	NMU	\$ 500

Scholarships

2020 – 2021	Chancellor's Scholarship	UW-Milwaukee	\$ 1, 200
2019 – 2020	Chancellor's Scholarship	UW-Milwaukee	\$ 1, 200
2018 – 2019	Chancellor's Scholarship	UW-Milwaukee	\$ 1, 200
2018	Lukowicz Memorial Scholarship	UW-Milwaukee	
2018	American Federation of Mineralogical Soc.	--	\$ 4,000
2018	Wisconsin Geological Society	--	\$ 500
2017 - 2018	Chancellor's Scholarship	UW-Milwaukee	\$ 1, 200
2014	Nelson Memorial Field Camp Scholarship	UW-Milwaukee	
2014	Graduate Field Work Scholarship	WI Geo Soc	
2013 – 2014	Chancellor's Scholarship	UW-Milwaukee	
2011 – 2013	Earth Science Award	Ishpeming R&M Club	

Awards

2013	Outstanding Graduating Senior	Northern Michigan University
2012	Volunteer of the Month (March)	Northern Michigan University

Failed

Grants

2022	Application to Sail (Sedimentology)	IODP, Exp. 400	\$18,000
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**presenting author, ^invited, °postponed or canceled due to COVID*

- Ives, L.R.W.***, K.M. Stack, S. Gupta, G. Caravaca, P. Russell, D. Shuster, A. Williams, S. Alwmark, R. Barnes, J. Bell III, O. Beyssac, A. Brown, D. Flannery, J. Frydenvang, J. Grotzinger, M. Lamb, B. Horgan, J. Hurowitz, H. Kalucha, O. Kanine, J. Núñez, N. Randazzo, C. Seeger, J. Simon, M. Tice, M. Tebolt, L. Kah, R. Williams, H. Amundsen, A. Annex, Mars 2020 Science Team (2023b). Physical Sedimentology and Stratigraphy of the lower Western Fan (Shenandoah formation) Jezero Crater, Mars: Results from the Mars 2020 “Delta Front” Campaign. International Conference on Fluvial Sedimentology 2023, July 2 – 8, Riva del Garda, Italy.
- Ives, L.R.W.***, K.M. Stack, R. Barnes, S. Gupta, G. Caravaca, P. Russell, A.M. Annex (2023a). Lithofacies, Flow Directions, and Preliminary Depositional Interpretations of Ledge-Forming Sandstones at Alagnak, Jezero Crater, Mars. 54th Lunar and Planetary Science Conference, March 12 – 17, The Woodlands, Texas. [Abstract #2556](#).
- Stack, K.M.*, S. Gupta, M. Tebolt, G. Caravaca, **L.R.W. Ives**, P. Russell, D. Shuster, A. Williams, S. Alwmark, R. Barnes, J. Bell III, O. Beyssac, A. Brown, D. Flannery, J. P. Grotzinger, B. Horgan, J. Hurowitz, H. Kalucha, O. Kanine, J.I. Núñez, N. Randazzo, C. Seeger, J. Simon, M. Tice, R.M.E. Williams (2023). Sedimentology and Stratigraphy of the Lower Delta Sequence, Jezero Crater, Mars. 54th Lunar and Planetary Science Conference, March 12 – 17, The Woodlands, Texas. [Abstract #1422](#).
- Ives, L.R.W.*^**, J.E. Rawling III, E.C. Carson, K.C. Stolzman (2022). Reframing Glacial Lake Scuppernong: Lakes of the Laurentide Ice Sheet’s Southern Green Bay Lobe in Jefferson County, Wisconsin. American Quaternary Association Biennial Meeting, June 7-11, 2022 Madison, Wisconsin. [Abstract](#).
- Carson, E.C.*^, **L.R.W. Ives**, K.C. Stolzman, J.E. Rawling III (2021). Glacial lakes in the footprint of the southern Green Bay Lobe of the Laurentide Ice Sheet. GSA Connects 2021.
- Carson, E.C.*^, **L.R.W. Ives**, K.C. Stolzman, J.E. Rawling III (2021). Tracking the evolution of glacial lakes Yahara and Scuppernong, south-central Wisconsin, USA. Geological Society of America Annual North-Central and South-Central Joint Section Meeting.
- ° **Ives, L.R.W.**, J.E. Rawling III, and K.C. Stolzman (2020). Landform assemblages, Quaternary stratigraphy, and preliminary Quaternary geologic map, Jefferson County, Wisconsin. Geological Society of America North-Central Section Meeting, Duluth, Minnesota, USA, May 18 -19, 2020.
- ° **Ives, L.R.W.** and J.L. Isbell (2020). South Polar glaciation and the glacial-to-postglacial transition in the Permian: an example from the Pagoda Formation, Shackleton Glacier Region, Antarctica. International Sedimentary Geosciences Congress, Flagstaff, Arizona, USA, April 26-29, 2020.
- Ives, L.R.W.** and J.L. Isbell (2019). South Polar Glaciation during the Late Paleozoic: Observations from the Shackleton Glacier Region, Transantarctic Mountains. U.S. Interdisciplinary Antarctic Earth Sciences Meeting and Deep Field Camp Planning Workshop, Julian, California, USA, October 13-16, 2019.
- Ives, L.R.W.*** and N.R. Iverson (2019). Genesis of glacial flutes: a case study from Múlajökull, Iceland. International Symposium on Glacial Erosion and Sedimentation, Madison, Wisconsin, USA, May 12-17, 2019.
- Ives, L.R.W.*** and J.L. Isbell (2019). Preliminary sedimentology of the early Permian, glaciogenic Pagoda Fm., Mt. Butters, Shackleton Glacier Region, Central Transantarctic Mountains, Antarctica. DEEPDUST ICDP Workshop, Norman, Oklahoma, USA, March 6 – 10, 2019.
- Isbell, J.L.^ and **L.R.W. Ives*** (2018). Antarctica, the heart of it all: a South Polar view of glaciation during the Late Paleozoic Ice Age. American Geophysical Union Fall Meeting, Washington, DC, USA, December 10 – 14, 2018. [C22B-01](#).

- ABSTRACTS, cont'd
- Ives, L.R.W.*** and J.L. Isbell. (2018). Preliminary sedimentological and stratigraphic analysis of the basal glacial Wynyard Formation (Wynyard, Tasmania, Australia). Geological Society of America, North-Central 52nd Annual Meeting, Ames, Iowa, USA, April 16-17, 2018. [Paper 31-4](#).
- Ives, L.R.W.*** and J.L. Isbell. (2018). Preliminary sedimentological and stratigraphic analysis of the basal glacial Wynyard Formation (Wynyard, Tasmania, Australia). VII Simposio del Paleozoico Superior; Esquel, Chubut, Argentina, March 26-28, 2018, [p. 13](#).
- Ives, L.R.W.***, T.S. Hooyer, N.R. Iverson, A. Schomaker (2014). Measuring fabrics of glacial flutes using anisotropy of magnetic susceptibility, Múlajökull, Iceland. Geological Society of America Annual Meeting, Vancouver, B.C., Canada, October 19-22, 2014. [paper # 137-22](#).
- Woodford, L.R.*** and R.S. Regis (2013). Paleogeographic interpretation of the late Cambrian Groveland Mine stratigraphy, Dickinson County, Michigan. Geological Society of America North-Central Section, Kalamazoo, MI, USA, May 2-3, 2013. [paper # 28-32](#).

- INVITED LECTURES
- 2022 State of Michigan Geology Outreach Committee Training
- 2022 Hiawatha National Forest Karst Management Team
- 2022 University of Wisconsin – Eau Claire
- 2022 Florence Bascom Geoscience Center, U.S. Geological Survey
- 2021 Museum of Discovery & Science, Ft. Lauderdale, FL
- 2018 University of Wisconsin – Madison
- 2018 Shackleton Glacier Deep Field Camp

- SERVICE
- 2022 -26 Early Career Scientist Committee International Association of Sedimentologists
- 2021 Pod Organizer, UW - Milwaukee URGE: Unlearning Racism in the Geosciences
- 2017-20 Sed. Group Meetings Coordinator University of Wisconsin – Milwaukee
- 2020 Technical Session Co-Chair GSA2020
- “T46. An Interdisciplinary View of Paleozoic Glaciations and Icehouse Climates: Sedimentology, Paleoclimate, Paleontology, Geochemistry, Geochronology, and Modeling.”
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- 2019 Host, Special Lecture Tour International Association of Sedimentologists
- 2018 Student Representative (Geoscience) UW – Milwaukee Student Association
- 2018-19 President, Great Lakes Chapter Association for Women Geoscientists
- 2011-13 President, Rock and Mineral Club Northern Michigan University
- 2012-13 President, Gamma Theta Upsilon Northern Michigan University
- 2011-13 Grader and Supervisor Michigan Science Olympiad

- REVIEWER FOR
- Journals
- Sedimentary Geology
- Palaeogeography, Palaeoclimatology, Palaeoecology
- Frontiers in Earth Science
- Geology
- Journal of Quaternary Science
- Grants
- Great Lakes Geologic Mapping Coalition Panel

FIELD WORK EXPERIENCE	2018-22	Glacial Geology Mapping and Core Collecting	Wisconsin & Michigan, USA
	2020	Forest Soil Monitoring Surveys	Michigan, USA
	2018	Sedimentology of Esquel and Valle Chico Fms	Patagonia, Argentina
	2018	Sedimentology of Sierra de Tepuel	Patagonia, Argentina
	2018-17	Sedimentology of Permian – Triassic strata	Shackleton Glacier, Antarctica
	2017	Sedimentology of the Wynyard Fm	Tasmania, Australia
	2017	Sedimentology of Sierra de Tepuel	Patagonia, Argentina
	2014	Glacial geology of Breiðamerkurjökull	Iceland
	2014	Glacial geology of Múlajökull	Iceland

RELEVANT
COMPUTER SKILLS GIS: ESRI ArcGIS Suite, QGIS
Languages: Python, Matlab, R, Arcpy

OUTREACH AND VOLUNTEERING	<u>Public Events</u>		
	2023	JPL/Mars2020 Representative	DiscoverCaltech , Pasadena, CA
	2023	JPL Outreach Booth	Yuri's Night Los Angeles , LA, CA
	2022	Les Cheneaux Geology Field Trip	Aldo Leopold Festival, Cedarville, MI
	2022	Public Lecture	Tap Talk, Mackinaw City, MI
	2021	Dinosaurs of Antarctica Panel	Clarke Planetarium, Salt Lake City, UT
	2021	Dinosaurs of Antarctica Panel	Awesomecon, Washington, DC
	2021	Les Cheneaux Geology Field Trip	Aldo Leopold Festival, Cedarville, MI
	2021	Public Lecture	Mackinaw Area Historical Society
	2020 – 2021	Voices for Science Fellow	American Geophysical Union
	2019	Public Lecture	P.E.O. Mankato, MN
	2019	Public Lecture	Kettle Moraine Geological Society
	2019	Public Lecture	Wisconsin Geological Society
	2014	Science Bag Assistant	University of Wisconsin – Milwaukee
	<u>Primary & Secondary Schools</u>		
	2019 – 2020	Pen pal	Letters to a Pre-Scientist
	2020	Science-A-Thon	Earth Science Women's Network
	2020	7th Grade Classroom Visit	Learn 6 Campus, North Chicago, IL
	2020	1st Grade Classroom Visit	Lake Bluff Elementary, Shorewood, WI
	2011- 2012	Assistant Coach, LEGO Robotics	Bothwell Middle School, Marquette, MI
	<u>Media</u>		
	2021	Print Interview, LiveScience	When did Antarctica become a Continent?
	2021	Podcast Interview	Under our Feet (S1:E8 – An Icy Visitor)
2017 – present	Science Adviser/Character	“Dinosaurs of Antarctica” Giant Screen Films	
<u>Blog Posts</u>			
Ives, L.R.W. and P. Matheny. “Cryo-Adventures – The Glacial Isostatic Adjustment (GIA) Training School: Personal and Virtual Attendance”, EGU Cryospheric Sciences Division Blog, October 4, 2019. LINK			
<u>Career</u>			
2023	Guest Lecture, Case Studies Coarse	University of Wisconsin – Milwaukee	
2023	Career Panel Participant	AWG – University of Wisconsin chapter	
2022	Geoscience Career Discussion	Go FoRWARD , Milwaukee, WI	