

**DAVID STEWART JONES**  
Assistant Professor of Geology  
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## Professional Appointments

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2011 – present      Assistant Professor, Department of Geology  
Amherst College, Amherst, MA

2009 – 2010      Postdoctoral Research Scholar, Department of Earth & Planetary Sciences  
Washington University in Saint Louis, Saint Louis, MO

2008 – 2009      Visiting Instructor, Department of Geology  
Bates College, Lewiston, ME

2001 – 2004      High School Teacher, Math and Geology  
University School, Hunting Valley, OH

## Education

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2004 – 2009      Ph.D. (Geology & Geochemistry), Harvard University, Cambridge, MA.  
Advisor: Paul F. Hoffman

1994 – 1998      B.A. (Geology), Carleton College, Northfield, MN. Advisor: David M. Bice

## Publications and Abstracts

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### Peer Reviewed Published Articles (\*Amherst College undergraduate)

**Jones, D. S.**, Martini, A. M., Fike, D. A., and Kaiho, K., 2017. A volcanic trigger for the Late Ordovician mass extinction? Mercury data from South China and Laurentia. doi:10.1130/G38940.1. *Geology*, 45: xx-xx.

Yellen, B., Woodruff, J. D., Ralston, D., MacDonald, D., and **Jones, D. S.**, 2017. Salt wedge dynamics lead to enhanced sediment trapping within side-embayments in high-energy estuaries. doi: 10.1002/2016JC012595. *Journal of Geophysical Research: Oceans*, 122: 2226-2242.

**Jones, D. S.**, \*Creel, R. C., and \*Rios, B., 2016. Carbon isotope stratigraphy and correlation of depositional sequences in the Upper Ordovician Ely Springs Dolostone, eastern Great Basin, USA. doi: 10.1016/j.palaeo.2016.01.036. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 458: 85–101.

**Invited contribution.**

**Jones, D. S.**, \*Creel, R. C., \*Rios, B., and \*Santiago Ramos, D., 2015. Chemostratigraphy of an Ordovician-Silurian carbonate platform:  $\delta^{13}\text{C}$  records below glacioeustatic exposure surfaces. doi:10.1130/G36236.1. *Geology*, 43: 59-62.

**Jones, D. S.**, and Fike, D. A., 2013. Dynamic sulfur and carbon cycling through the end-Ordovician extinction revealed by paired sulfate-pyrite  $\delta^{34}\text{S}$ . doi: 10.1016/j.epsl.2012.12.015. *Earth and Planetary Science Letters*, 363: 144-155.

Finnegan, S., Fike, D. A., **Jones, D. S.**, and Fischer, W. W., 2012. A temperature-dependent positive feedback on the magnitude of carbon isotope excursions. *Geoscience Canada*, 39: 122-131.

Macdonald, F. A. and **Jones, D. S.**, 2011. The Khubsugul Group, Mongolia. In: Arnaud, E., Halverson, G. P., and Shields-Zhou, G. (eds.), *The Geological Record of Neoproterozoic Glaciations*, Geological Society, London, Geological Society of London Memoirs, 36, p. 339-345.

**Jones, D. S.**, Finnegan, S., Fike, D. A., Fischer, W. W., Schrag, D. P., and McCay, D., 2011. Terminal Ordovician carbon isotope stratigraphy and glacioeustatic sea-level change across Anticosti Island (Québec, Canada). doi:10.1130/B30323.1. *Geological Society of America Bulletin*, 123: 1645-1664.

Finnegan, S., Bergmann, K., Fischer, W. W., **Jones, D. S.**, Fike, D. A., Hughes, N. C., Tripathi, A., and Eiler, J. M., 2011. The magnitude and duration of Late Ordovician-Early Silurian glaciation. doi: 10.1126/science.1200803. *Science*, 331: 903-906.

**Jones, D. S.**, Maloof, A. C., Rainbird, R., Hurtgen, M. T., and Schrag, D. P., 2010. Regional and global chemostratigraphic correlation of the Early Neoproterozoic Shaler Supergroup, Victoria Island, northwest Canada. doi:10.1016/j.precamres.2010.05.012. *Precambrian Research*, 181: 43-63.

Macdonald, F. A., Schmitz, M. D., Crowley, J. C., Roots, C. F., **Jones, D. S.**, Maloof, A. C., Strauss, J. V., Cohen, P. A., Johnston, D. T., and Schrag, D. P., 2010. Calibrating the Cryogenian. doi: 10.1126/science.1183325. *Science*, 327: 1241-1243.

Macdonald, F. A., **Jones, D. S.**, and Schrag, D. P., 2009. Stratigraphic and tectonic implications of a new glacial diamictite – cap carbonate doublet in southwestern Mongolia. doi:10.1130/G24797A.1. *Geology*, 37: 123-126.

Hoffman, P. F., Crowley, J. W., Johnston, D. T., **Jones, D. S.**, and Schrag, D. P., 2008. Snowball prevention questioned. doi:10.1038/nature07655. *Nature*, 456: E7-E10.

Gattacceca, J., Deino, A., Rizzo, R., **Jones, D. S.**, Henry, B., Beaudoin, B., and Vadeboin, F., 2007. Miocene rotation of Sardinia: New paleomagnetic and geochronological constraints and geodynamic implications. doi:10.1016/j.epsl.2007.02.003. *Earth and Planetary Science Letters*, 258: 359-377.

### Non-Peer Reviewed Published Articles

**Jones, D. S.**, 2016. Cracking the Neoproterozoic atmosphere? doi:10.1130/focus082016.1. *Geology*, 44: 687-688. **Invited contribution.**

Published conference abstracts since 2011 (\*Amherst College undergraduate)

Faggetter, L., Wignall, P. B., Pruss, S. B., **Jones, D. S.**, and Grasby, S. E., 2017. Mercury spikes at the Cambrian Series 2 – 3 boundary: an imprint of the Kalkarindji LIP? 2017 *Northeastern Geobiology Symposium*, University of Connecticut. (<http://earth.uconn.edu/northeast-geobiology-symposium-2017>)

**Jones, D. S.**, \*Brothers, R. W., and Higgins, J. A., 2016. Calcium isotopes, seawater diagenesis, and end Ordovician Earth history, *Geological Society of America Abstracts with Programs*, Vol. 48, No. 7, doi: 10.1130/abs/2016AM-280549. **Invited contribution.**

**Jones, D. S.**, Martini, A. M., and Kaiho, K., 2016. Did volcanism trigger the Late Ordovician mass extinction? Mercury data from South China. *Geological Society of America Abstracts with Programs*, Vol. 48, No. 7, doi: 10.1130/abs/2016AM-280651.

**Jones, D. S.**, \*Santiago Ramos, D. P., and \*Beaty, B. J., 2015. Diagenetic  $\delta^{34}\text{S}_{\text{CAS}}$  variability in meteorically altered dolostones: a regional case study from the Upper Ordovician of the Great Basin. *Geological Society of America Abstracts with Programs*, Vol. 47, No. 7, p. 697.

**Jones, D. S.**, Plon, H. L., \*Pessoa, C. K., Higgins, J. A., Ku, T. C., Martini, A. M., and Tor, J. M., 2015. Geochemistry and geobiology of a dolomitic alkaline playa lake. *Geological Society of America Abstracts with Programs*, <https://gsa.confex.com/gsa/2015AM/webprogram/Paper266983.html>.

**Jones, D. S.**, Finnegan, S., and \*Hellmer, M. C., 2015. Paired  $\delta^{13}\text{C}_{\text{carb}}$ - $\delta^{13}\text{C}_{\text{org}}$  records from the Laurentian margins during late Katian glaciation. *Stratigraphy*, 12(2): 111-112.

Yellen, B. C., Woodruff, J. D., MacDonald, D., Martini, A. M., and **Jones, D. S.**, 2015. Infilling of tidal freshwater river coves – observations at multiple time scales. *Geological Society of America Abstracts with Programs*, Vol. 47, No. 3, p. 86.

**Jones, D. S.**, \*Creel, R. C., \*Rios, B. A., and \*Santiago Ramos, D. P., 2014. Late Ordovician and early Silurian glacioeustatic sea level changes and carbon isotope chemostratigraphy. *Geological Society of America Abstracts with Programs*, Vol. 46, No. 6, p. 624.

**Jones, D. S.**, \*Creel, R. C., \*Rios, B., and \*Santiago, D., 2013. Chemostratigraphy of an Ordovician-Silurian shallow water carbonate platform: implications for the interpretation of  $\delta^{13}\text{C}$  excursions under glacioeustatic exposure surfaces. *Geological Society of America Abstracts with Programs*, Vol. 45, No. 7, p. 34.

Fike, D.A. and **Jones, D. S.**, 2012. Micron-scale analysis of carbonate-associated sulfate by secondary ionization mass spectrometry: insights into spatial variability in  $\delta^{34}\text{S}_{\text{CAS}}$ . Abstract B24E-05 presented at 2012 Fall Meeting, AGU, San Francisco, Calif., 3-7 Dec.

Fike, D. A., **Jones, D. S.**, and Fischer, W. W., 2011. Spatial heterogeneity in sulfur isotopes: implications for modern environments and paleoenvironmental reconstructions. Abstract B43H-07 presented at 2011 Fall Meeting, AGU, San Francisco, Calif., 5-9 Dec.

**Jones, D. S.**, Fike, D. A., and Fischer, W. W., 2011. Basin-scale variability of sulfur isotope records from a mixed carbonate-siliciclastic succession (Ordovician-Silurian strata of Anticosti Island, Québec). *Geological Society of America Abstracts with Programs*, Vol. 43, No. 5, p. 611.

Smith, E. F., Macdonald, F. A., **Jones, D. S.**, Creveling, J. C., and Bold, U., 2011. The Ediacaran to early Cambrian in Mongolia: Stratigraphy, geochemistry, and paleontology of a tectonically reactivated basin. *Geological Society of America Abstracts with Programs*, Vol. 43, No. 5., p. 269.

Fike, D. A., **Jones, D. S.**, and Fischer, W. W., 2011. The geographic and stratigraphic record of Ordovician  $\delta^{13}\text{C}_{\text{carb}}$  in outcrops and the subsurface of Anticosti Island, Canada. *Mineralogical Magazine*, Vol. 75 (3), p. 845.

### External Research Grants

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- American Chemical Society Petroleum Research Fund (ACS-PRF) Undergraduate Research Grant, “Sulfur Isotope Chemostratigraphy as a Potential Tool for Correlation in Paleozoic Dolomite.” 2016-2019 – \$70,000
- Keck Geology Consortium Research Grant, “A geobiological approach to understanding dolomite formation at Deep Springs Lake, CA.” Co-Director with Jason Tor (Hampshire College), 2013-2014 – \$41,496
- National Science Foundation Graduate Research Fellowship, 2005-2008

### Fellowships and Awards

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- Kavli Fellow, Second Israeli-American Kavli Frontiers of Science symposium, co-sponsored by the Israel Academy of Science and Humanities and the U. S. National Academy of Sciences, Jerusalem, February 2015. **By invitation.**
- Trustee Faculty Fellowship, Amherst College, 2014-2015
- Henry Breck Fund Research Grant, Harvard University Center for the Environment, 2005-2006
- James Mills Peirce Fellowship, Harvard University, 2004-2007
- Alfred W. Stickney Fellowship, Harvard University, 2004-2005

### Invited Research Talks

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- **Princeton University**, Geosciences Department Solid Earth Brown Bag Seminar, “A volcanic trigger for the Late Ordovician glaciation and mass extinction,” October 2016.
- **Harvard University**, Department of Earth and Planetary Sciences BiSSEPS Seminar, “A volcanic trigger for the Late Ordovician glaciation and mass extinction: evidence from mercury chemostratigraphy,” October 2016.
- **University of Connecticut**, Center for Integrative Geosciences Seminar, “Death on the playa: geochemistry and geobiology of dolomite formation at Deep Springs Lake, CA,” February 2016.
- **University of Massachusetts Amherst**, Five College Geology Faculty Symposium, “Death on the playa: dolomite formation at Deep Springs Lake, CA,” September 2015.
- **MIT**, Chemical Oceanography, Geology, Geochemistry, and Geobiology Seminar, “Isotope geochemistry of dolomite precipitation in a modern playa lake,” April 2015
- **Rensselaer Polytechnic Institute**, Department of Earth and Environmental Sciences Seminar, “Stable isotopes and the Ordovician-Silurian glaciation: climate, environment, and diagenesis,” November 2014.

- **Williams College**, Class of 1960 Lecturer in Geosciences, “Glaciation, extinction, and microbes: sulfur isotopes from the Ordovician-Silurian boundary,” February 2013.
- **Smith College**, Five College Geology Faculty Symposium, “The marine sulfur isotope record of the end Ordovician glaciation and extinction,” November 2012.

## **Service and Outreach**

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### *Institutional Service at Amherst College*

- Committee on International Education, February 2017 – present
- Keck Geology Consortium Campus Representative, January 2017 – present
- Five College Coastal and Marine Science Steering Committee, 2016 – present
- Faculty Committee on Admission and Financial Aid, 2015 – 2016
- Amherst College Climate Action Plan task force, 2015 – 2016
- First Year Seminar Direct Assessment Pilot Project, Fall 2013
- Teagle Seminar for First Year Seminar Instructors, Fall 2013
- Copeland Colloquium Participant, 2013-2014
- DeMott Lecture Reading Group Facilitator, 2013, 2015
- First Year Seminar Workshop, May 2013
- Housing Committee, 2013-2014
- First Year Orientation Advising, 2012, 2013, 2015, 2016
- Swift Moore Committee, Spring 2012, Spring 2013
- Science and Humanities discussion group, 2012-13
- Flipped Classroom discussion group, Spring 2013 – Spring 2014

### *Professional Service in the Geoscience Community*

- Peer reviewer of manuscripts for *Geological Society of America Bulletin*; *Geology*; *Earth and Planetary Science Letters*; *Nature Communications*; *American Journal of Science*; *Palaeogeography*, *Palaeoclimatology*, *Palaeoecology*; *Geoscience Canada*; *Chemical Geology*; *Canadian Journal of Earth Science*; *Basin Research*; *Geo-Marine Letters*
- Peer reviewer of research proposals for American Chemical Society Petroleum Research Fund (ACS PRF); NSF Sedimentary Geology & Paleobiology Program; NSF CAREER Program; National Geographic Society

### *Public Outreach and Education*

- Public lecture on climate change science, Western Massachusetts Master Gardener’s Association, February 2016
- Interview on WHMP radio discussing mass extinctions and geology, August 2015
- “The Unusual Minerals and Microbes of Deep Springs Lake,” public science lecture for community members, Deep Springs College, May 2015
- Led field trips to local geological sites for high school class from Rutland, VT, Spring 2014