

JON M. HUSSON
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EMPLOYMENT

(April 2017 →) **assistant professor at University of Victoria**
School of Earth and Ocean Sciences

(Oct. 2014 – March 2017) **post-doctoral fellow at University of Wisconsin – Madison**
advisor: Shanan Peters

EDUCATION

(2009 – 2014) **graduate student at Princeton University (Princeton, NJ)**
Sept. 2014 **Ph.D.**, Department of Geosciences
Thesis: *Constraining timing and origin of unusual carbon cycle dynamics in the terminal Proterozoic and middle Paleozoic*

May 2011 **M.A.**, Department of Geosciences

(2003 – 2008) **undergraduate at Harvard University (Cambridge, MA)**
B.A., Earth and Planetary Sciences, *magna cum laude*

RESEARCH METHODS/SKILLS

field: high-precision mapping (30-cm 2σ) with a Trimble differential GPS system (R8 GPS base station and GeoXH rover); 15 months field work in Namibia, Canadian Arctic, Tanzania, maritime Canada, central Australia, South Australia, The Bahamas, Cyprus, upstate New York

laboratory: $\delta^{13}\text{C}$ and $\delta^{18}\text{O}$ measurements on GasBench II-Thermo Delta Plus and GasBench II-Sercon 20-22 instruments; trace element abundances on a Thermo Element 2 ICP-MS; $\delta^{44/40}\text{Ca}$ and $\delta^{26}\text{Mg}$ measurements on a multi-collector Thermo Neptune Plus ICP-MS; U-Pb dating of single zircon grains on a PhoeniX62 TIMS instrument at low blank ($\text{Pb}_c < 1$ pg) levels

programming/computing: Matlab; Python; ArcGIS; QGIS; PostgreSQL; HTML; Adobe Illustrator; \LaTeX ; GitHub

TEACHING EXPERIENCE

- University of Victoria (*primary instructor*):
EOS 300: **Earth Science Field School**
- Princeton University (*as teaching assistant*):
S2013: **Structural Geology** with Prof. Schoene
F2012: **Fundamentals of Solid Earth Science** with Profs. Tromp and Higgins

ADVISING EXPERIENCE

- Marikò Cappello (Masters at UVic, *to begin Fall 2017*)
- Ben Barnes (Masters at UW-Madison, *graduated June 2017*)
- Sarah E. Bluher (undergraduate at Princeton, *graduated June 2014*)
- Christine Y. Chen (undergraduate at Princeton, *graduated June 2013*)

HONORS/AWARDS

- Teaching Award (university-wide), *Association of Princeton Graduate Alumni* (2013)
- Outstanding Teaching Assistant Award, *National Association of Geoscience Teachers* (2013)
- Arnold Guyot Teaching Award, *Princeton Department of Geosciences* (2013)
- NSF Graduate Research Fellow (2010–2014)

PUBLICATIONS (*italics* denotes in-revision/in-press; # denotes student co-author)

- **Husson, J. M.** and Peters, S. E., 2016, *Drivers of Paleozoic pCO₂ decline and the end-Permian mass extinction: Geology, in review.*
- Peters, S.E., **Husson, J. M.**, and Wilcots, J.W.#, 2017, The rise and fall of stromatolites in shallow marine environments: *Geology*, vol. 45, pp. 487–490.
- Peters, S.E. and **Husson, J. M.**, 2017, Sediment cycling on continental and oceanic crust: *Geology*, vol. 45, pp. 323–326.
- **Husson, J. M.** and Peters, S.E., 2017, Atmospheric oxygenation driven by unsteady growth of the continental sedimentary reservoir: *Earth and Planetary Science Letters*, vol. 460, pp. 69–75.
- **Husson, J. M.**, Schoene, B., Bluher, S. E.#, and Maloof, A. C., 2016, Chemostratigraphic and U-Pb geochronologic constraints on carbon cycling across the Silurian-Devonian boundary: *Earth and Planetary Science Letters*, vol. 436, pp. 108–120.
- Keller, C. B., Schoene, B., Barboni, M., Samperton, K. M., and **Husson, J. M.**, 2015, Volcanic-plutonic parity and the differentiation of the continental crust: *Nature*, vol. 523, pp. 301–307.
- **Husson, J. M.**, Higgins, J. A., Maloof, A. C., and Schoene, B., 2015, Ca and Mg isotope constraints on the origin of Earth's deepest $\delta^{13}\text{C}$ excursion: *Geochimica et Cosmochimica Acta*, vol. 160, pp. 243–266.
- **Husson, J. M.**, Maloof, A. C., Schoene, B., Chen, C. Y.#, and Higgins, J. A., 2015, Stratigraphic expression of Earth's deepest $\delta^{13}\text{C}$ excursion in the Wonoka Formation of South Australia: *American Journal of Science*, vol. 315, pp. 1–45.

- **Husson, J. M.**, Maloof, A. C., and Schoene, B., 2012, A syn-depositional age for Earth's deepest $\delta^{13}\text{C}$ excursion required by isotope conglomerate tests: *Terra Nova*, vol. 24, pp. 318–325.
- Rose, C. V., Swanson-Hysell, N. L., **Husson, J. M.**, Poppick, L. N., Cottle, J. M., Schoene, B., and Maloof, A. C., 2012, Constraints on the origin and relative timing of the Trezona $\delta^{13}\text{C}$ anomaly below the end-Cryogenian glaciation: *Earth and Planetary Science Letters*, vol. 319, pp. 241–250.
- Higgins, M. B., Robinson, R. S., **Husson, J. M.**, Carter, S. J., and Pearson, A., 2012, Dominant eukaryotic export production during ocean anoxic events reflects the importance of recycled NH_4^+ : *Proceedings of the National Academy of Sciences*, vol. 109, pp. 2269–2274.
- Johnston, D. T., Poulton, S. W., Dehler, C., Porter, S., **Husson, J.**, Canfield, D. E., and Knoll, A. H., 2010, An emerging picture of Neoproterozoic ocean chemistry: insights from the Chuar Group, Grand Canyon, USA: *Earth and Planetary Science Letters*, vol. 290, pp. 64–73.
- Hoffman, P., Halverson, G., Domack, E., **Husson, J.M.**, Higgins, J., and Schrag, D., 2007, Are basal Ediacaran (635 Ma) post-glacial “cap dolostones” diachronous?: *Earth and Planetary Sciences Letters*, vol. 258, pp. 114–131.

PROFESSIONAL TALKS (* denotes invited talk; # denotes student co-author)

- **Husson, J.M.***, Linzmeier, B.L.#, Śliwiński, M.G., Kitajima, K., Valley, J.W., Peters, S.E., Schoene, B., and Maloof, A.C., 2017, From basin to crystal: Constraining the origin of Earth's largest carbon isotope excursion. *Geobiology Society Conference, Banff, Canada.*
- **Husson, J.M.*** and Peters, S.E., UW-Madison Continuing Studies, PLATO Frontiers in Life Sciences seminar, March 2017
- **Husson, J.M.**, Peters, S.E., Ross, I.A. and Czaplewski, J.J., 2016, Macrostrat and GeoDeep-Dive: a platform for geological data integration and deep-time research: *American Geophysical Union Fall Meeting, IN23F-04.*
- **Husson, J.M.** and Peters, S.E., 2016, Shifting locus of carbonate sedimentation and the trajectory of Paleozoic $p\text{CO}_2$: *American Geophysical Union Fall Meeting, PP22B-05.*
- **Husson, J.M.***, Peters, S.E., Czaplewski, J.J., Zaffos, A.A., Syverson, V., Heim, N., and Kishor, P., 2016, Cyberinfrastructure opportunities for geochronological data: *Future of EARTHTIME Workshop.*
- **Husson, J.M.***, University of Victoria, Department Colloquium, April 2016
- **Husson, J.M.** and Peters, S.E., 2015, Modes of continental sediment storage and the history of atmospheric oxygen: *American Geophysical Union Fall Meeting, PP31E-05.*
- **Husson, J.M.***, McGill University, Department Colloquium, November 2015
- **Husson, J.M.** and Peters, S.E., 2015, Macrostratigraphic constraints on the global carbon cycle: *Geological Society of America Abstracts with Programs, Vol. 47, No. 7, p. 276.*
- **Husson, J.M.***, University of Wisconsin - Madison, Weeks Lecture, September 2015
- **Husson, J.M.**, Peters, S.E. and Czaplewski, J., 2015, Macrostratigraphic constraints on the global carbon cycle: *NC Geological Society of America Meeting, Vol. 47, No. 5, p. 61.*

- **Husson, J.M.***, Washington University, Department Colloquium, April 2015
- **Husson, J.M.***, Johns Hopkins University, Bromery Lecture, January 2015
- Higgins, J.A., Blättler, C.L. and **Husson, J.M.**, 2014, Is my C isotope excursion global, local, or both? Insights from the Mg and Ca isotopic composition of primary, diagenetic, and authigenic carbonates: American Geophysical Union Fall Meeting, PP43E-03.
- **Husson, J.M.**, Higgins, J.A., Maloof, A.C., and Schoene, B., 2014, Ca isotope constraints on the origin of Earth's deepest $\delta^{13}\text{C}$ excursion: Geological Society of America Abstracts with Programs, Vol. 46, No. 6, p. 401.
- **Husson, J.M.***, Massachusetts Institute of Technology, Geology, Geochemistry and Geobiology seminar, April 2014
- **Husson, J.M.**, Maloof, A.C., Schoene, B., Chen, C.Y.#, and Higgins, J.A., 2014, Stratigraphic expression of Earth's deepest $\delta^{13}\text{C}$ excursion in the Wonoka Formation of South Australia: Northeastern Geobiology Symposium at Yale University.
- **Husson, J.M.***, Schoene, B., Bluher, S.E.#, and Maloof, A.C., 2013, Absolute time constraints on the Silurian-Devonian boundary $\delta^{13}\text{C}$ excursion: William Smith Meeting of the Geological Society of London.
- Maloof, A.C., Swanson-Hysell, N. L., Rose, C. V., **Husson, J.M.**, Dyer, B.C., Halverson, G.P., and Hurtgen, M.T., 2011, The regolith hypothesis for the Tonian-Cryogenian transition: American Geophysical Union Fall Meeting, B33L-02.
- **Husson, J.M.**, Maloof, A.C., and Schoene, B., 2010, Stratigraphic tests for the origin of the deepest carbon-isotope anomaly in Earth history - the Wonoka Formation of South Australia: Geological Society of America Abstracts with Programs, Vol. 42, No. 5, p. 397.

PROFESSIONAL POSTERS (# denotes student co-author)

- Barnes, B.D.#, **Husson, J.M.***, Śliwiński, M.G., Denny, A.D., Valley, J.W., and Peters, S.E., 2017, Constraining the Importance of Authigenic Carbonate in the Global Carbon Cycle: A Case Study from the Bakken Formation: American Association of Petroleum Geologists Annual Convention and Exhibition, Houston, TX.
- **Husson, J.M.** and Peters, S.E., 2016, Modes of continental sediment storage and the history of atmospheric oxygen: Gordon Research Conference on Geobiology, Galveston, TX.
- Wilcots, J.#, **Husson, J.M.**, and Peters, S.E., 2015, Stromatolite distribution in space and time: a machine-reading assisted quantitative analysis: Geological Society of America Abstracts with Programs, Vol. 47, No. 7, p. 210.
- **Husson, J.M.**, Maloof, A.C., Schoene, B., and Higgins, J.A., 2013, Does the Shuram $\delta^{13}\text{C}$ excursion record Ediacaran oxygenation?: American Geophysical Union Fall Meeting, PP51B-1948.
- **Husson, J.M.**, Schoene, B., Bluher, S.E.#, and Maloof, A.C., 2013, Absolute time constraints on the Silurian-Devonian boundary $\delta^{13}\text{C}$ excursion: American Association of Petroleum Geologists Annual Convention and Exhibition, Pittsburgh, PA.
- **Husson, J.M.**, Maloof, A.C., and Schoene, B., 2012, A syn-depositional age for Earth's deepest $\delta^{13}\text{C}$ excursion required by isotope conglomerate tests: Fermor Meeting of the Geological Society of London.