

JON M. HUSSON
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EDUCATION/EMPLOYMENT

- (Oct. 2014 \rightarrow) **post-doctoral fellow at University of Wisconsin – Madison**
advisor: Shanan Peters
- (2009 – 2014)
Sept. 2014 **graduate student at Princeton University (Princeton, NJ)**
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*

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)

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; HTML; Adobe Illustrator; \LaTeX

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

- **Husson, J. M.**, Schoene, B., Blüher, 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^{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.** 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)

- 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.

TEACHING/ADVISING EXPERIENCE

- Princeton University Teaching Assistant:
 S2013: **Structural Geology** with Prof. Schoene
 F2012: **Fundamentals of Solid Earth Science** with Profs. Tromp and Higgins
 F2011: **Earth's Environment and Ancient Civilizations** with Profs. Maloof and Simons
- High school guest teacher in Earth history (2–3x per year; 2009–2014)
- Trained 21 undergraduates to work in geochemistry laboratories and 3 undergraduates as field assistants (2009 – 2013)
- Supervised two independent undergraduate research projects (1 month of field work, 6 months of independent lab work) by Christine Y. Chen ('13) and Sarah E. Bluher ('14). These projects grew into papers co-authored with both undergraduate students (see above).