

UNIVERSITY OF VICTORIA
FACULTY CURRICULUM VITAE

Last Update: July 11, 2019

Name: Jon Husson

Faculty: Science

School of Earth and Ocean Sciences (SEOS)

1. EDUCATION AND TRAINING

Degree	Field	Institution	Year
B.A. (<i>magna cum laude</i>)	Earth and Planetary Sciences	Harvard University	2008
M.Sc.	Geoscience	Princeton University	2011
Ph.D.	Geoscience	Princeton University	2014

Title of Thesis or Dissertation

Ph.D., Constraining timing and origin of unusual carbon cycle dynamics in the terminal Proterozoic and middle Paleozoic

2. POSITIONS HELD PRIOR TO UNIVERSITY APPOINTMENT

Oct. 2014 – March 2017: post-doctoral fellow at University of Wisconsin – Madison

3. APPOINTMENTS AT THE UNIVERSITY OF VICTORIA

Apr. 2017 – present: Assistant Professor, SEOS

4. MAJOR FIELDS OF SCHOLARLY OR PROFESSIONAL INTEREST

Earth history, carbonate sedimentology and stratigraphy, low temperature isotope geochemistry, U-Pb geochronology, Precambrian geology, deep time carbon cycle.

5. RESEARCH GRANTS AND FELLOWSHIPS

A. Research Operating Grants

Agency	Title	Holder	Period	Amount/yr
UVic	Faculty Travel Grant	Husson	2019	\$1,150
UVic	Faculty Travel Grant	Husson	2018	\$1,150
UVic	Start-up Grant	Husson	2017–2021	\$20,000
UVic	Faculty Travel Grant	Husson	2017	\$1,000
NSERC	Discovery Grant	Husson	2017–2022	\$23,000

B. Equipment Grants

Agency	Title	Holder	Period	Amount/yr
RTI	Nd YAG Laser for ICPMS	Canil*	2019	\$141,000
CFI	gas-source isotope mass spectrometer	Husson	2017	\$70,000
BCKDF	gas-source isotope mass spectrometer	Husson	2017	\$70,000

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**co-applicant*

C. Honours, Fellowships and Scholarships

2013 Teaching Award (Association of Princeton Graduate Alumni)
 2013 Outstanding Teaching Assistant Award (National Association of Geoscience Teachers)
 2013 Arnold Guyot Teaching Award (Princeton Department of Geosciences)
 2010–2014 Graduate Research Fellowship (National Science Foundation)

6. PUBLICATIONS AND PRESENTATIONS

Authorships by HQP are indicated with #. Manuscripts in review are denoted by *italics*.

A. Articles Published in Refereed Journals

19. Barnes, B.D.#, **Husson, J.M.**, and Peters, S.E., *Authigenic Carbonate Burial in the Late Devonian/Early Mississippian Bakken Formation (Williston Basin, USA), in review with Sedimentology.*
18. **Husson, J.M.**, Linzmeier, B.L.#, Śliwiński, M.G., Kitajima, K., Ishida, A., Maloof, A.C., Schoene, B., Peters, S.E. and Valley, J.W., *Large isotopic variability at the micron-scale in records of the Ediacaran carbon cycle, re-submission to EPSL in July 2019.*
17. Keller, C.B., **Husson, J.M.**, Mitchell, R., Bottke, W.F., Gernon, T.M., Boehnke, P., Bell, E.A., Swanson-Hysell, N.L. and Peters, S.E., 2019, Neoproterozoic glacial origin of the Great Unconformity, *Proceedings of the National Academy of Sciences*, vol. 116(4), pp. 1136–1145.
16. **Husson, J. M.** and Peters, S.E., 2018, Nature of the sedimentary rock record and its implications for Earth history, invited review article in *Windows on the Early Earth: Late Precambrian Environmental Dynamics and Co-Evolving Complex Life*, a special issue of *Emerging Topics in Life Sciences*, vol 2(2), pp. 125–136.
15. Peters, S.E., **Husson, J. M.**, and Czaplewski, J., 2018, Macrostrat: a platform for geological data integration and deep-time Earth crust research. *Geochemistry, Geophysics, Geosystems*, vol.19, pp. 1393–1409.

14. Peters, S.E. and **Husson, J. M.**, 2018, We need a global comprehensive stratigraphic database: heres a start. *The Sedimentary Record*, vol. 16(1).
13. Peters, S. E., Ross, I., Czaplewski, J., Glassel, A., **Husson, J. M.**, Syverson, V., Zaffos, A., and Livny, M., 2017, A new tool for deep-down data mining: *Eos*, vol. 98
12. 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.
11. Peters, S.E. and **Husson, J. M.**, 2017, Sediment cycling on continental and oceanic crust: *Geology*, vol. 45, pp. 323–326.
10. **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.
9. **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.
8. 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.
7. **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.
6. **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.
5. **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.
4. 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.
3. 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.
2. 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.

1. 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.

C. Presentations at Conferences or Institutions

Invited Presentations

Authorships by HQP are indicated with #. Upcoming presentations are denoted by *italics*.

15. **Husson, J.M.**, *University of California - Berkeley, Earth & Planetary Sciences Departmental Seminar, October 2019*
14. **Husson, J.M.**, Linzmeier, B.L.#, Śliwiński, M.G., Kitajima, K., Ishida, A., Maloof, A.C., Schoene, B., Peters, S.E. and Valley, J.W., 2019, *Large isotopic variability at the micron-scale in Shuram excursion carbonates from South Australia: Goldschmidt.*
13. **Husson, J.M.**, Peters, S.E., Czaplewski, J., and Zaffos, A., 2018, Getting it all on the map: aggregating and exposing geological information in a space-rock scaffolding: American Geophysical Union Fall Meeting, IN42A-02.
12. **Husson, J. M.** and Peters, S.E., November 2017, The nature of the rock record and its implications for Earth history. BC Geological Survey Open House.
11. **Husson, J.M.**, seminar at Pacific Geoscience Centre (Sidney, BC), November 2017
10. **Husson, J.M.**, Stanford University, Geological Sciences Seminar, October 2017
9. **Husson, J.M.**, Linzmeier, B.L.#, Śliwiński, M.G., Kitajima, K., Valley, J.W., Peters, S.E., Schoene, B., and Maloof, A.C., June 2017, From basin to crystal: Constraining the origin of Earth’s largest carbon isotope excursion. Geobiology Society Conference, Banff, Canada.
8. **Husson, J.M.**, Peters, S.E., Czaplewski, J.J., Zaffos, A.A., Syverson, V., Heim, N., and Kishor, P., September 2016, Cyberinfrastructure opportunities for geochronological data: Future of EARTHTIME Workshop.
7. **Husson, J.M.**, University of Victoria, Department Colloquium, April 2016
6. **Husson, J.M.**, McGill University, Department Colloquium, November 2015
5. **Husson, J.M.**, University of Wisconsin - Madison, Weeks Lecture, September 2015
4. **Husson, J.M.**, Washington University, Department Colloquium, April 2015
3. **Husson, J.M.**, Johns Hopkins University, Bromery Lecture, January 2015
2. **Husson, J.M.**, Massachusetts Institute of Technology, Geology, Geochemistry and Geobiology seminar, April 2014
1. **Husson, J.M.**, Schoene, B., Bluher, S.E.#, and Maloof, A.C., June 2013, Absolute time constraints on the Silurian-Devonian boundary $\delta^{13}\text{C}$ excursion: William Smith Meeting of the Geological Society of London.

Contributed Presentations

Authorships by HQP are indicated with #. Upcoming presentations are denoted by *italics*.

17. *Gazdewich, S.C.#, **Husson, J.M.** and Hauck, T., 2019, Stable isotope stratigraphy of Late Devonian carbonates in the Rocky Mountain front ranges: a field test of the authigenic lever: Geological Society of America, T82-yyy-x.*
16. *Lei, J.Z.X.#, Golding, M.L., and **Husson, J.M.** 2019, Paleoenvironmental interpretation and identification of the Norian–Rhaetian boundary in the Whitehorse Trough (Stikine Terrane, northern Canadian Cordillera): Geological Society of America, T114-yyy-x.*
15. **Husson, J.M.**, Linzmeier, B.L.#, Śliwiński, M.G., Kitajima, K., Ishida, A., Maloof, A.C., Schoene, B., Peters, S.E. and Valley, J.W., 2018, Large isotopic variability at the micron-scale in Shuram excursion carbonates from South Australia: American Geophysical Union Fall Meeting, PP41D-1405.
14. Cappello, M.#, **Husson, J.M.**, Schoene, B., Bergmann, K., Finnegan, S., and Jones, D.S. 2018, Radiometric age constraints on the Ordovician-Silurian boundary from eastern Canada and Sweden: Geological Society of America, T125-113-1.
13. Peters, S.E., Czaplewski, J. and **Husson, J.M.**, 2018, Macrostrat: a platform for aggregating, relating, and using geological data and information: Geological Society of America, 50-2.
12. Peters, S.E., Syverson, V.J.P., Zaffos, A., **Husson, J.M.**, Ross, I., and Czaplewski, J., 2017, Extending the reach and resolution of the Paleobiology Database with computational and data infrastructures: Geological Society of America Abstracts with Programs, Vol. 49, No. 6.
11. 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.
10. **Husson, J.M.**, Peters, S.E., Ross, I.A. and Czaplewski, J., 2016, Macrostrat and GeoDeepDive: a platform for geological data integration and deep-time research: American Geophysical Union Fall Meeting, IN23F-04.
9. **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.
8. **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.
7. **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.

6. **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.
5. 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.
4. **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.
3. **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.
2. 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.
1. **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.

7. SERVICE AND PROFESSIONAL ACTIVITIES

A. Departmental Committees and Responsibilities

2019–present	Undergraduate Awards, Chair
2017–present	SEOS Departmental Committee
2017–present	Undergraduate Committee
2018–2019	Earth History Search Committee
2017–2018	Tectonics Search Committee

B. Conference Organization

2019	Session Organizer, American Geophysical Union (San Francisco)
2018	Session Organizer, American Geophysical Union (Washington, DC)

C. Grant Proposals Reviewed

2019	ACS Petroleum Research Fund (1 total)
2018	NSERC Discovery grant application (2 total)
2017	NSF grant application (1 total)

D. Reviews for Journals, Book Reports, Published Commentaries

In the following list, number in parantheses indicates number of articles reviewed for that journal **since 2015**. Reviews of resubmitted manuscripts are counted individually (i.e., 1 original submission + 1 re-submitted submission = 2 reviews).

Nature Scientific Reports (2)
 Journal of Asian Earth Sciences (1)
 Geological Society of America Bulletin (3)
 Chemical Geology (2)
 American Journal of Science (1)
 Nature Geoscience (1)
 Earth and Planetary Science Letters (1)
 Geology (3)
 Terra Nova (1)
 Global Planetary Change (1)
 Proceedings of the National Academy of Sciences (3)
 Nature Communications (1)
 Geobiology (1)

8. OTHER INFORMATION/ACTIVITIES

2019 research (Keller, Husson et al., 2019, PNAS) highlighted in popular press:

- Eos ([link](#))
- National Geographic ([link](#))
- Ars Technica ([link](#))
- History ([link](#))
- The Weather Channel ([link](#))
- Los Angeles Times ([link](#))

2017 research (Peters, Husson and Wilcots, 2017, Geology) highlighted in UW-Madison publication:

- D. Tennenbaum, March. 30, 2017. Massive, computer-analyzed geological database reveals chemistry of ancient ocean. (online at <https://news.wisc.edu>)

2017 invited talk at a continuing education program:

- **Husson, J.M.** and Peters, S.E., UW-Madison Continuing Studies, PLATO Frontiers in Life Sciences seminar, March 2017

2017 research (Husson and Peters, 2017, EPSL) interview with popular press magazine:

- Medium ([link](#))

2016 research (Husson and Peters, 2017, EPSL) highlighted in UW-Madison publication:

- D. Tennenbaum, Dec. 30, 2016. Fossil fuel formation: Key to atmospheres oxygen?
(online at <https://news.wisc.edu>)