Morgan E McLellan

PhD Candidate- Earth Sciences

University of Ottawa, Department of Earth and
Environmental Sciences

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RESEARCH INTERESTS

Subduction Zones	Tectonics	Machine Learning Applications
Slow Earthquakes	Earthquake Seismology	Crustal/Upper Mantle Structure

EDUCATION

University of Ottawa, Ontario

PhD. in Earth sciences, *in progress*

MSc. in Earth Sciences, December 2016

Honours BSc. with specialization in Geology/Physics, May 2014 – *Magna Cum Laude*

EMPLOYMENT

University of Ottawa

Teaching Assistant, September 2018 – present; September 2014-2016

Research Assistant and Laboratory Technician, October 2017 - December 2018; May 2012-August 2013

Canadian Hazard Information Service, Natural Resources Canada

Geophysical Scientist, September 2016 - May 2017

Seismic Analyst, June 2014 - August 2014

AWARDS

Magna Cum Laude

University of Ottawa, 2014

GAC Geophysics Division Student Best Presentation Award

GAC-MAC, Whitehorse, 2016

University of Ottawa Admission Scholarship

- Undergraduate: 2010-2014
- Graduate, Masters: 2014-2016
- Graduate, Doctorate: 2018-2022

PRESENTATIONS AND PUBLICATIONS

Peer-reviewed publications

McLellan, M., and Audet, P. Uncovering the physical controls of deep subduction zone slow slip using supervised classification of subducting plate features. *Geophysical Journal International*. Submitted.

Gosselin, J.M., Audet, P.A., Estève, C., **McLellan, M.**, Mosher, S.G., & Schaeffer, A.J. Seismic evidence for mega thrust fault-valve behaviour during episodic tremor and slip. *Science Advances.* Accepted.

McLellan, M., Schaeffer, A., Audet, P. Structure and deformation of the northern Canadian Cordillera: Insights from Rayleigh wave tomography. *Tectonophysics*. (2018) 724: 28–41

Contributed conference presentations (Presenting author)

McLellan, M. and Audet, P. Uncovering the physical controls of slow slip using machine learning, International Joint Workshop on Slow Earthquakes, Sendai, Japan, 2019 (Oral).

McLellan, M. and Audet, P. Uncovering the physical controls of slow slip using machine learning, Seismological Society of America, Seattle, 2019 (Poster).

McLellan, M. and Audet, P. Uncovering the physical controls of episodic tremor and slip using machine learning, American Geophysical Union, Washington, 2018 (Poster).

McLellan, M., Schaeffer, A, Audet, P. Structure and deformation of the northwestern Canadian Cordillera: Insights from Rayleigh wave tomography, GAC-MAC, Whitehorse, 2016 (Oral). ****GAC Geophysics Division Student Best Presentation Award****

McLellan, M., Schaeffer, A., Audet P. Rayleigh-wave tomography study of northwestern Canada, American Geophysical Union Fall Meeting, San Francisco, 2015 (Poster).

McLellan, M., Audet, P. Ambient-noise tomography study of northwestern Canada: Preliminary results, GAC-MAC-CGU-AGU Joint Assembly, Montreal, 2015 (Poster).

Contributed conference presentations (Not presenting author)

McLellan, M., Tarayoun, A., Sole, C., Schaeffer, A.J., and Audet, P. Structure and deformation of the northern Canadian Cordillera: A broadband seismic reconnaissance study, AGU Fall Meeting, San Francisco, USA, 2016 (Poster)

Audet, P., Schaeffer, A.J., **McLellan, M.**, Tarayoun, A., and Sole, C. Structure and deformation of the northern Canadian Cordillera: A broadband seismic reconnaissance study, CGU Annual Meeting, Vancouver, 2017 (Poster).