

Brian Bagley

University of Minnesota
Department of Earth and Environmental Sciences

Curriculum Vitae

952-221-3695

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Education

Ph.D. Geophysics, 2011

University of Minnesota

Dissertation: Seismic Structure of the Mantle Beneath the Pacific Hemisphere

B.S. Geophysics, 2006

Texas A&M University

Minors: Geology and Mathematics

Honors: Magna Cum Laude, Undergraduate Research Scholar

Professional Experience

University of Minnesota - Geospatial Developer

2021 - present

- Develop and maintain code in Python
- Use HPC resources to process satellite data

University of Minnesota - Research Associate

2014 - 2021

- Manage the X-ray Computed Tomography Lab
- Develop and teach image analysis techniques
- Produce preliminary data for research proposals

University of Minnesota - Postdoctoral Associate

2012 - 2014

- Oversaw installation of the X-ray Computed Tomography Lab
- Designed and created an image analysis lab
- Trained and mentored students

Pennsylvania State University - Postdoctoral Scholar, Seismologist

2011 - 2012

- Maintained and monitored 10 station seismic network in Pennsylvania
- Researched seismic anisotropy in eastern Africa using shear wave splitting
- Part of the POLENET research team in Antarctica

Consultec - Network Consultant, Co-owner

1997 - 2002

- Designed, installed, and maintained Novell and Microsoft networks
- Certified Crystal Reports and Crystal Server installer
- Provide support for Oracle DB and SQL generated reports

Advanced Network Technologies - Network Consultant

1995 - 1997

United States Navy - Electronic Technician

1989 - 1995

Skills

- Programming: C, C+, Fortran, Python
- Scripting: Bash, C shell, TCL, AWK, SED
- Operating Systems: Unix, Linux, Mac, Windows
- Experience processing 3D volumes using parallel GPUs
- Experience using GIT and Subversion
- Expertise in image analysis using Avizo and Matlab

Selected Publications

- Rogers, R. R., K. A. Curry Rogers, **Bagley, Brian C.**, J. J. Goodin, J. H. Hartman, J. T. Thole, and M. Zatoń (2018), Pushing the record of trematode parasitism of bivalves upstream and back to the cretaceous, *Geology*.
- Lulich, J., H. Prasad, M. Manno, and **Bagley, B.** (2017), Ectopic bone as a nidus for calcium oxalate urocystolithiasis in a cat, *Journal of Veterinary Internal Medicine*, *31*(6), 1866–1870.
- Luhmann, A. J., B. M. Tutolo, **Bagley, Brian C.**, D. F. Mildner, P. P. Scheuermann, J. M. Feinberg, K. Ignatyev, and W. E. Seyfried Jr (2017), Chemical and physical changes during seawater flow through intact dunite cores: An experimental study at 150–200°C, *Geochimica et Cosmochimica Acta*, *214*, 86–114.
- Rogers, K. C., M. Whitney, M. D’Emic, and **Bagley, B.** (2016), Precocity in a tiny titanosaur from the Cretaceous of Madagascar, *Science*, *352*(6284), 450–453.
- Chatzaras, V., S. C. Kruckenberg, S. M. Cohen, L. G. Medaris, A. C. Withers, and **Bagley, B.** (2016), Axial-type olivine crystallographic preferred orientations: The effect of strain geometry on mantle texture, *J. Geophys. Res.*, *121*(7), 4895–4922.
- Bagley, B.**, A. M. Courtier, and J. Revenaugh (2013), Seismic shear wave reflectivity structure of the mantle beneath northeast China and the northwest Pacific, *J. Geophys. Res.*, *118*(10), 5417–5427, doi: 10.1002/jgrb.50385.
- Bagley, B.**, and A. A. Nyblade (2013), Seismic anisotropy in eastern Africa, mantle flow, and the African superplume, *Geophys. Res. Lett.*, *40*(8), 1500–1505, doi: 10.1002/grl.50315.
- Bagley, B.**, A. M. Courtier, and J. Revenaugh (2009), Melting in the deep upper mantle oceanward of the Honshu slab, *Earth Planet. Sci. Lett.*, *175*(3), 137–144, doi: 10.1016/j.pepi.2009.03.007.
- Bagley, B.**, and J. Revenaugh (2008), Upper mantle seismic shear discontinuities of the Pacific, *J. Geophys. Res.*, *113*(B12), doi: 10.1029/2008JB005692.

A complete list of publications can be found on my [Google Scholar](#) page.

References

Donna Whitney, Department Head, University of Minnesota, dwhitney@umn.edu, 612-624-2041
Charles Nguyen, IT Director, University of Minnesota, ctn@umn.edu, 612-624-4673
Raymond Rogers, Professor and Chair, Macalester College, rogers@macalester.edu, 651-696-6434