

Thomas “Alex” Johnson
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EDUCATION:

The University of California, Santa Barbara, Santa Barbara, CA
PhD in Geology- June, 2022 (anticipated)
Advisor: John Cottle

Washington State University, Pullman, WA
MS in Geology- May, 2017
Advisor: Jeff Vervoort
3.95 GPA cumulative

The College of William and Mary, Williamsburg, VA
BS in Geology, Cum Laude- May, 2013
Co-Advisors: Brent Owens and Chuck Bailey
3.50 GPA cumulative, **3.63 GPA** in major

RESEARCH EXPERIENCE:

Graduate Research Project, Washington State University, Master’s Thesis (2014-2017)
Advisor: Dr. Jeff Vervoort

Thesis title: The timing and duration of metamorphism in the Blue Ridge Province, Virginia and North Carolina

Postgraduate Research Fellowship, College of William and Mary (2013-2014)
Advisors: Dr. Chuck Bailey and Dr. Brent Owens

- Mapped contacts of a series of metagabbros intrusive bodies in the eastern Blue Ridge of Virginia near Charlottesville, VA
- Sampled from throughout main body for petrographic and geochemical analysis and comparison with nearby Catoclin Formation
- Outlined two possible origins for tectonic histories of the intrusions

Undergraduate Research Project, College of William and Mary, Senior Thesis (2012-2013)
Advisors: Dr. Brent Owens and Dr. Chuck Bailey

Thesis Title: Geology of the Catoclin Formation in the eastern Blue Ridge, central Virginia: Petrogenesis and tectonic signature

USGS EdMap, USGS/College of William and Mary (8/2011-5/2014)

Advisor: Dr. Chuck Bailey

- Mapped the bedrock geology of the Alberene 7.5" quadrangle in the eastern Blue Ridge of central Virginia
- Assisted seniors conduct fieldwork for various research projects including a structural analysis of the Scottsville Basin, a petrographic and geochemical study of a series of ultramafic dikes and sills, and a kinematic analysis of the brittle deformation of the eastern Blue Ridge

NOAA Hollings Scholarship Research Project, NOAA National Centers for Coastal Ocean Science/NOAA Office of Education (Summer 2012)

Advisor: Kris Holderied, NOAA/UAF Kasitsna Bay Lab Director

- Outlined the construction of a 3-dimensional interactive map of the bathymetry, geology, biogeography, and the locations of ongoing oceanographic research points in and around Kachemak Bay, Alaska
- Constructed a series of 3-dimensional animated fly-throughs of Kachemak Bay and various sub-bays and tributaries.
- Assisted in various multi-day science education camps in robotics and marine science for local children (jointly run by the Kachemak Bay Research Reserve).

PROFESSIONAL EXPERIENCE:

Teaching Assistant, UCSB Department of Earth Science,

Santa Barbara, CA (9/2017-Present)

- Geology 114, Geomaterials (Fall 2017)

Teaching Assistant, Washington State University School of the Environment,

Pullman, WA (8/2014-Present)

Supervisor: Dr. Kurt Wilkie

- Geology 101, Introductory Geology (Fall 2014, Spring 2015, Spring 2016)
- Geology 102, Physical Geology (Fall 2016)
- Geology 103, Comparative Planetology (Spring 2016)
- Geology 230, Introductory Oceanography (Fall 2015; Fall 2016)
- Geology 320, Sedimentary Petrology and Sedimentation (Fall 2015)

Lab Technician, Washington State University School of the Environment,

Pullman, WA (Summers 2015, 2016, and 2017)

Supervisors: Dr. Jeff Vervoort and Diane Wilford

- Processed contract samples for the WSU Radiogenic Isotope and Geochronology Lab
- Chemical separation of isotope and elemental systems (Lu, Hf, Sm, and Nd) via ion chromatography
- Isotopic measurements using the ThermoFinnigan Neptune MC-ICP-MS

Geology Curator, The College of William and Mary Department of Geology,
Williamsburg, VA (*Summer 2014*)

Supervisor: Dr. Chuck Bailey

- Catalogued the holdings of the WM Department of Geology- Geologic Specimen Collection using a systematic organizational scheme.

Geology Fellow, The College of William and Mary Department of Geology,
Williamsburg, VA. (*8/2013-5/2014*)

Supervisor: Dr. Chuck Bailey

- Conducted research on the origins of the assemblage of meta-gabbroic dikes and sills in the eastern Blue Ridge, central Virginia
- Assisted in the planning of lectures and grading of assignments for Earth Structure and Dynamics (Spring 2014)
- Lectured for ~2 weeks during professor absence, to a class of ~30 upper level geology students (Geology 323- Earth Structure and Dynamics)

PUBLICATIONS:

Johnson, T.A., Hollis, J.S., Bailey, C.M., Jensen, A., Hahn, M., Quinlan, K., Owens, B.E., and Marshall, A., 2014, Geologic map of the Alberene quadrangle, Virginia. *Virginia Division of Geology and Mineral Resources Publication 180*. 1:24,000-scale geologic map and text.

PUBLICATIONS IN PREPARATION:

Johnson, T.A., Vervoort, J.D., Ramsey, M.J., Southworth, S., and Aleinikoff, J.N., (in prep), Sm-Nd and Lu-Hf garnet geochronology of the Blue Ridge Geologic Province, Virginia. EPSL

Owens, B.E., Dorfler, K.M, Tracy, R.J., **Johnson, T.A.**, Shirvell, C.R., and Vervoort, J.D., (in prep), Conditions and Timing of High-Pressure Granulite-Facies Metamorphism in the Goochland Terrane, Piedmont Province, Virginia

CONFERENCE ABSTRACTS:

Vervoort, J.D., Wang, D., and **Johnson, T.A.**, 2017, Mixed messages from garnet Lu-Hf and Sm-Nd geochronology: American Geophysical Union Abstract V024-283256.

Johnson, T.A., Vervoort, J.D., Ramsey, M.J., Southworth, S., Aleinikoff, J.N., and Tollo, R.P., 2017, Constraints on the timing and duration of the Grenville Orogeny: Geological Society of America Abstracts with Programs, v. 49, n. 3, doi: 10.1130/abs/2017SE-290920.

Wolff, J., Iveson, A., Davis, K., **Johnson, T.**, Gahagan, S., and Ellis, B., 2015, A clinopyroxene-plagioclase geobarometer for A-type silicic volcanic rocks: American Geophysical Union Abstract V13A-3090.

- Johnson, T.A.**, Ramsey, M.J., Vervoort, J.D., Mulcahy, S.D., Southworth, S., Aleinikoff, J.N., 2015, Slow cooling: the timing and duration of metamorphism in the Blue Ridge Province, Virginia and North Carolina: Geological Society of America Abstracts with Programs, v.47, n.7, p.447.
- Johnson, T.A.**, Bailey, C., Owens, B., Jensen, A., 2014, The geology of the Catoctin Formation and possible associated metagabbros in the eastern Blue Ridge, central Virginia: Geological Society of America Abstracts with Programs, v.46, n. 3, p.85.
- Johnson, A.**, Owens, B., Bailey, C., 2013, Geology of the Catoctin Formation in the eastern Blue Ridge, central Virginia; stratigraphy, geochemistry, and petrogenesis: Geological Society of America Abstracts with Programs, v. 45, n. 2, p. 62.
- Jensen, A., Hahn, M., Quinlan, K., **Johnson, A.**, Bailey, C., Owens, B., 2012, Framing the Neoproterozoic Iapetan rift sequence; geology of the Alberene 7.5' quadrangle, eastern Blue Ridge, Virginia: Geological Society of America Abstracts with Programs, v. 44, n.4, p.21.

INVITED LECTURES:

- Johnson, T.A.**, Insights from garnet geochronology on the timing and duration of the Grenville Orogeny: University of Kentucky. Lexington, KY. March, 2017.
- Johnson, T.A.**, Bailey, C.M., Geology of the eastern Blue Ridge Iapetan cover sequence, central Virginia: Virginia Geologic Research Symposium. Charlottesville, VA. April, 2014.
- Johnson, T.A.**, How to build a bay: Construction of a 3-D interactive map of Kachemak Bay, Alaska: Kachemak Bay Research Reserve. Homer, AK. July, 2012.

NON-PEER-REVIEWED SCHOLARLY PUBLICATIONS:

- Johnson, A.**, Bailey, C.M., 2014, The Catoctin Formation-Virginia is for Lavas: *Glimpses of the Past: The Geology of Virginia*
(<http://geology.wm.edu/bailey/CatoctinFormation.pdf>)
- Johnson, T.A.**, 2013a, Big Soldier (1973) by T.C. Cannon: Curators at Work III: 43 Memoranda for the Curatorial Files, Muscarelle Museum of Art at The College of William and Mary
- Johnson, T.A.**, 2013b, Turn of the Century Dandy (1982) by T.C. Cannon: Curators at Work III: 43 Memoranda for the Curatorial Files, Muscarelle Museum of Art at The College of William and Mary

CO-CURRICULAR ACTIVITIES/LEADERSHIP:

- UCSB Department of Earth Science, Space Committee Rep (2017-2018)
- KZUU Radio Station, Disc Jockey (Fall 2014-Spring 2017)
- WSU Geology Club, Secretary (Fall 2015-Fall 2016)
- Rocky Mountain GSA (Moscow, ID), Volunteer (Spring, 2016)
- Vinyl Tap (WCWM) Music Quarterly, Contributor (Spring, 2016)
- WCWM Radio Station, Music/Programming Director (Spring 2010-Spring 2014)
- NOM Literary Society, Executive Panel (Fall 2009-2014)
- Botetourt Squat Newspaper, Cartoonist (Fall 2012-2013)
- Student Environmental Action Coalition, Recycling Committee (Fall 2011- 2013)
- William and Mary Conduct Council (2011-2012)
- Tidewater Labor Support Committee, Board of Visitors Liaison (2010-2012)

AWARDS/SCHOLARSHIPS:

- 2016 Roger V. LeClerc Memorial Fellowship (WSU)
- 2016 H. Walter and Jeanette Praetorius Graduate Fellowship in Geology (WSU)
- 2016 Walter P. and Allene H. Kleweno Graduate Fellowship in Geology (WSU)
- KZUU “Indie Genre” Disc Jockey of the Year, 2014-2015
- 2015 H. Walter and Jeanette Praetorius/Exxon Graduate Fellowship in Geology (WSU)
- 2015 James W. Crosby Memorial Scholarship (WSU)
- 2015 W. Frank Scott Endowment Scholarship (WSU)
- W&M Geology Fellowship (2013-2014)
- W&M Deans List (Fall 2010, Spring 2011, Fall 2012, Spring 2013)
- Sigma Gamma Epsilon, Geology Honor Society
- NOAA Hollings Scholarship, Class of 2011
- George and Mildred Pitts Scholarship (W&M)
- T.G. Paynter Scholarship (W&M)
- W&M Alumni Association-Richmond Chapter Book Scholarship
- NRHH William and Mary Student of the Month, October, 2009
- National Honor Society Scholarship State Semifinalist, 2009
- John Randolph Foundation Scholarship

GRANTS:

GSA, Southeastern Section Conference 2017; Travel Grant; \$150.00

GSA, National Conference 2015; Travel Grant; \$60.00

GSA, Southeastern Section Conference 2014; Travel Grant; \$100.00

GSA, Southeastern Section Conference 2013; *Travel Grant*; \$150.00

College of William and Mary, Committee on Sustainability (Green Fee); *Examining the viability of micro-hydroelectric turbines as a source of power generation in the Crim Dell Outwash*; \$1040.00; advised by Dr. Robert Vold, Department of Applied Science

FIELD EXPERIENCE:

1. Stratigraphic sectioning and sampling of Eocene volcanic and volcanoclastic sedimentary rocks: Southern British Columbia, June, 2016.
2. Reconnaissance mapping and sampling of Cretaceous rocks of the metamorphic sole of the Oman Ophiolite: Eastern Oman, December, 2013-January, 2014.
3. Mapping and sampling of Neoproterozoic metagabbros: Virginia Blue Ridge, October-November, 2013.
4. Mapping and sampling for preparation of the Alberene 7.5" Quadrangle map: Virginia Blue Ridge, May, 2011- December, 2013