

CURRICULUM VITAE

DAVID P. HAWKINS

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EDUCATION

- 1996 PhD: Massachusetts Institute of Technology, Cambridge, MA
 Thesis: U-Pb Geochronologic constraints on the tectonic and thermal evolution of Paleoproterozoic crust in the Grand Canyon, Arizona; Thesis Advisor: Samuel A. Bowring
- 1989-1991 PhD candidate: Washington University, St Louis, MO (before transferring to MIT)
- 1991 MS: The George Washington University, Washington, DC
 Thesis: Geology of the Battle Mountain Complex, Robertson River Formation, northern Virginia; Thesis Advisor: Richard P. Tollo
- 1983 BA in Biology: Clark University, Worcester, MA

ACADEMIC APPOINTMENTS

- 2008 – Associate Professor, Wellesley College (WC), Wellesley, MA
- 2007 - 2008 Chair, Dept of Geosciences, Denison University (DU), Granville, OH
- 2005 - 2008 Associate Professor, Denison University (DU), Granville, OH
- 1999 - 2005 Assistant Professor, Denison University (DU), Granville, OH
- 1997 - 1999 Visiting Assistant Professor, Colorado College (CC), Colorado Springs, CO
- 1996 - 1997 Visiting Assistant Professor, Franklin & Marshall College (F&M), Lancaster, PA

RESEARCH FUNDING

National Science Foundation Grant EAR-0536969 (2006-2009) “RUI: Collaborative Research: RUI: Linking pluton construction with magma chamber evolution in the Vinalhaven intrusive complex.” Awarded \$109,719 for a three-year research project conducted with co-Principal Investigator Dr. Robert Wiebe of Franklin & Marshall College.

National Science Foundation Grant EAR-0003555 (2001-2004) “*Collaborative Research: RUI: Mechanisms of hybridization in silicic magma chambers affected by mafic injections and their imprint on granite: The Vinalhaven complex, coastal Maine.*” Awarded \$104,371 for a three-year research project conducted with co-Principal Investigator Dr. Robert Wiebe of Franklin & Marshall College.

Denison University Research Fund Grant (DURF) (Spring 2000), “*Geologic Evidence for Explosive Volcanic Eruptions from Fossilized Granite Magma Chambers: Field Studies of Granite Plutons in Maine, Colorado & California.*” Awarded \$4,380 for research activities during the 2000-2001 academic year.

SELECTED PUBLICATIONS (peer-reviewed)

- Hawkins, D.P. and Wiebe, R.A., *in preparation*, High precision U-Pb geochronology of the Silurian Vinalhaven Intrusive Complex, Maine: Implications for the construction and longevity of a subvolcanic silicic intrusion. To be submitted to Contributions to Mineralogy and Petrology.
- Wiebe, R.A., Wark, D.A., and Hawkins, D.P., 2007, Insights from quartz cathodoluminescence zoning into crystallization of the Vinalhaven granite, coastal Maine: Contributions to Mineralogy and Petrology, v. 154, p. 439-453.
- Wiebe, R.A., Jellinek, M., Markley, M.J., Hawkins, D.P., and Snyder, D., 2007, Steep schlieren and associated enclaves in the Vinalhaven granite, Maine: possible indicators for granite rheology: Contributions to Mineralogy and Petrology, v. 153, p. 121-138.
- Hawkins, D. P., and Wiebe, R. A., 2004, Discrete stoping events in granite plutons: A signature of eruptions from silicic magma chambers?: Geology, v. 32, p. 1021-1024.
- Wiebe, R. A., Manon, M. R., Hawkins, D. P. & McDonough, W. F., 2004, Late stage mafic injection and thermal rejuvenation of the Vinalhaven granite, coastal Maine: Journal of Petrology, v. 45, p 2133-2153.
- Wiebe, R.A., Blair, K., Hawkins, D.P., and Sabine, C., 2002, Mafic injections, in situ hybridization, and crystal accumulation in the Pyramid Peak granite, California: Geological Society of America Bulletin, v114, p. 909-920.
- Wiebe, R.A., Frey, H., and Hawkins, D.P., 2001, Basaltic pillow mounds in the Vinalhaven intrusion, Maine: Journal of Volcanology and Geothermal Research, v 107, p 171-184.
- Hawkins, D.P., and Bowring, S.A., 1999, U-Pb monazite, xenotime and titanite geochronologic constraints on the high-temperature thermal history of Paleoproterozoic migmatites from the Grand Canyon: Contributions to Mineralogy and Petrology, v. 134, p. 150-169.
- Hodges, K., Bowring, S., Davidek, K., Hawkins, D., and Krol, M., 1998, Evidence for rapid displacement on Himalayan normal faults and the importance of tectonic denudation in the evolution of mountain ranges: Geology, v. 26, p.483-486.
- Hawkins, D.P., and Bowring, S.A., 1997, U-Pb systematics of Monazite and xenotime: Case studies from the Paleoproterozoic of the Grand Canyon, Arizona: Contributions to Mineralogy and Petrology, v. 127, p. 87-103.
- Hawkins, D.P., Bowring, S.A., Ilg, B.R., Karlstrom, K.E., and Williams, M.L., 1996, U-Pb geochronologic constraints on Paleoproterozoic crustal evolution, Upper Granite Gorge, Grand Canyon, Arizona: Geological Society of America Bulletin, v. 108, p. 1167-1181.
- Ilg, B.R., Karlstrom, K.E., Hawkins, D.P., and Williams, M.L., 1996, Tectonic evolution of Paleoproterozoic rocks in the Grand Canyon: Insights into middle crustal processes: Geological Society of America Bulletin, v. 108, p. 1149-1166.
- Hoffman, P.F., Hawkins, D.P., Isachsen, C.E., and Bowring, S.A., 1996, Preliminary U-Pb zircon ages for early Damara magmatism in the Summas Mountains and Welwischia Inlier, northern Damara belt, Namibia: in Communications of the Geological Survey of Namibia, v 9, Windhoek.

FIELD GUIDES, BOOK CHAPTERS AND OTHER CONTRIBUTIONS

- Hawkins, D.P., and Wiebe, R.A., 2007, Construction of the subvolcanic Vinalhaven intrusive complex, coastal Maine, in Twentieth Annual Keck Research Symposium in Geology Proceedings, p. 96-135, http://keck.wooster.edu/publications/2007_abstracts/2007TOC.html.
- Karlstrom, K.E., Ilg, B.R., Williams, M.L., Hawkins, D.P., Bowring, S.A., and Seaman, S.J., 2004, Paleoproterozoic rocks of the Granite Gorges, in Beus, S.S. and Morales, M., eds., Grand Canyon Geology: New York, Oxford University Press, volume 2, p. 9-38.
- Wiebe, R.A., Snyder, D., Hawkins, D.P., 2001, GSA Field Forum: Correlating volcanic and plutonic perceptions of silicic magma chamber processes: Evidence from coastal Maine plutons: GSA Today, v 11, no. 1, p 26.
- Wiebe, R.A., and Hawkins, D.P., 2000, Igneous Geology of Vinalhaven Island: in New England Intercollegiate Geological Field Conference, 92nd Annual Meeting, Yates, M.G., Lux, D.R., and Kelley, J.T., eds., Guidebook to field Trips in Coastal and East-Central Maine, p 94-106.
- Wiebe, R.A., Snyder, D., and Hawkins, D.P., *unpublished*, Guidebook: Geological Society of America Field Forum: Correlating volcanic and plutonic perceptions of silicic magma chamber processes: evidence for coastal Maine plutons: Ellsworth, Maine, September 14-18, 2000, 66p.

SELECTED CONFERENCE ABSTRACTS

- Hawkins, D., Brown, N., Wiebe, R., Klemetti, E., and Wobus, R., 2009, Documenting the Timescale of Pluton Construction: U-Pb Geochronology of the Subvolcanic Vinalhaven Intrusion and Associated Volcanic Rocks: Geological Society of America - Abstracts with Programs, vol. 41, no.7, p. 148.
- Hawkins, D. P., Thompson, M.D. & Wiebe, R. A., 2009, A strategy for paleomagnetic investigation of intrusive complexes in the northern Appalachians: Geological Society of America - Abstracts with Programs, vol. 41, no.3, p. 19.
- Hawkins, D. P. and Wiebe, R. A., 2007, Longevity of the Silurian Vinalhaven Intrusive Complex, Maine, USA: Eos, Transactions, AGU, v. 88, No. 52, p.
- Wiebe, R. A. & Hawkins, D.P., 2007, Episodic Growth and Solidification of the Vinalhaven Intrusive Complex, Maine, USA: Eos, Transactions, AGU, v. 88, No. 52, p.
- Hawkins, D. P. and Wiebe, R. A., 2004, Timescale for Incremental Construction of the Silurian Vinalhaven Intrusive Complex, Coastal Maine, USA: Eos, Transactions, AGU, v. 85, No. 47, p. F1935.
- Wiebe, R. A. & Hawkins, D.P., 2004, Construction of the Vinalhaven Intrusive Complex, Maine, USA: the Plutonic Record of Evolving Magma Chambers Affected by Multiple Episodes of Replenishment, Rejuvenation, Crystal Accumulation and Eruption: Eos, Transactions, AGU, v. 85, No. 47, p. F1931-2.
- Wiebe, R A; Wobus, R A; Hawkins, D P, 2004, Keck consortium field projects on the Maine coast: Geological Society of America - Abstracts with Programs, vol. 36, no.5, p. 418.
- Wiebe, R. A. & Hawkins, D.P., 2004, Multiple replenishments in an evolving silicic magma chamber: the Vinalhaven intrusive complex, Maine, USA: Geochimica et Cosmochimica Acta, (Goldschmidt Conference abstract).

- Hawkins, D. P. and Wiebe, R. A., 2003, High-precision temporal constraints on the construction of a periodically replenished, subvolcanic magma chamber: The Silurian Vinalhaven Intrusion, Maine, USA in Arima, M., Nakajima, T., and Ishihara, S., (editors) Hutton Symposium V: The Origin of Granites and Related Rocks, Abstract with Program: Geological Survey of Japan, Interim-Report 29, p 43.
- Wiebe, R.A., Manon, M.R., and Hawkins, D.P., 2003, Remobilization of the Vinalhaven granite by intrusion of basaltic magma, Maine, USA in Arima, M., Nakajima, T., and Ishihara, S., (editors) Hutton Symposium V: The Origin of Granites and Related Rocks, Abstract with Program: Geological Survey of Japan, Interim-Report 29, p 165.
- Hawkins, D. P. and Wiebe, R. A., 2003, U-Pb constraints on magmatism related to Vinalhaven intrusion, coastal volcanic belt, Maine: Geological Society of America Abstracts with Programs, v. 35, no. 3, p 69.
- Dektor, C.L., Hawkins, D. P., Wobus, R.A., and Wiebe, R. A., 2003, Implications of Silurian U-Pb ages of stratified rocks on Vinalhaven and North Haven Islands, Penobscot Bay, Maine: Geological Society of America Abstracts with Programs, v. 35, no. 3, p 36.
- Wiebe, R.A., and Hawkins, D.P., 2003, Construction of the Vinalhaven Intrusive Complex, Vinalhaven Island, coastal Maine: Geological Society of America Abstracts with Programs, v. 35, no. 3, p 94.
- Margolin, J.B., Wiebe, R.A., and Hawkins, D.P., 2003, The origin of compositionally graded layers in the Vinalhaven Intrusion, coastal Maine: Geological Society of America Abstracts with Programs, v. 35, no.3, p. 35.
- Hawkins, D. P., Wobus, R.A., and Wiebe, R. A., 2002, Silurian U-Pb zircon dates from the Vinalhaven intrusion and associated volcanic rocks, Penobscot Bay, Maine: Geological Society of America Abstracts with Programs, v. 34, p 42.
- Wiebe, R.A., Manon, M.R., and Hawkins, D.P., 2002, Thermal rejuvenation of the Vinalhaven granite, coastal Maine: Geological Society of America Abstracts with Programs, v. 34, p162.
- Hawkins, D. P. and Wiebe, R. A., 2000, Geological signatures of explosive eruptions in granitic plutons: examples from coastal Maine, USA. in Skilbeck, C. G. and Hubble, T C. T. (editors) Understanding Planet Earth: Searching for a Sustainable Future. Abstracts of the 15th Australian Geological Convention, Sydney, NSW, Australia. No. 59, p. 213.
- Hawkins, D.P., 1999, Field-based geochronological studies for teaching students about geological time and geological reasoning: Geological Society of America Abstracts with Programs, v. 31, no. 7, p 390.
- Hawkins, D.P., and Wiebe, R.A., 1999, Geologic evidence for volcanic eruption preserved in the stratigraphy of the Vinalhaven mafic-silicic layered intrusion, Penobscot Bay, Maine: Geological Society of America Abstracts with Programs, v. 31, no. 7, p 415.
- Sanders, R.E., and Hawkins, D.P., 1999, U-Pb geochronology of porphyritic clasts from the Pennsylvanian Fountain Formation, Colorado Front Range: Volcanic equivalents of the Pikes Peak batholith: Geological Society of America Abstracts with Programs, v. 31, no. 7, 178.
- Ilg, B. R.; Bowring, Samuel A., Hawkins, D., Karlstrom, K., Nobes, D. C., 1998, Tectonic evolution of Paleoproterozoic rocks in the Grand Canyon, Arizona; insights into middle crustal processes, in Williams, M., ed., New Zealand Geological Society Geological Society of New Zealand Miscellaneous Publication Vol. 101A. Lower Hutt : Geological Society of New Zealand, p. 125.

Hawkins, D.P., and Bowring, S.A., 1997, U-Pb IDTIMS MicroAnalysis of Monazite: Implications for U-Pb Geochronology of monazite: GAC-MAC Special Symposium on Microanalytical Techniques in Geochronology, May 1997.

Bowring, S. A.; Coleman, D. S.; Davidek, K. L.; Hawkins, D. P.; Hodges, K. V.; Karlstrom, K. E., 1996, Thermochronology of Proterozoic middle crust, Southwestern U. S., implications for models of lithospheric evolution: Abstracts with Programs - Geological Society of America Vol. 28, no. 7. Boulder, CO, p. 452.

Hawkins, D.P., Bowring, S.A., Williams, M.L., Karlstrom, K.E., 1996, A detailed thermal evolution of Paleoproterozoic middle crust in the Grand Canyon: Constraints from U-Pb monazite, xenotime and sphene thermochronology: Geological Society of America Abstracts with Programs, v. 28, no. 7, p. A316.

Hawkins, D.P., and Bowring, S.A., 1995, Age variation in U-Pb monazite data from Paleoproterozoic migmatite in the Grand Canyon: Implications for U-Pb monazite geochronometry: EOS, Transactions of the American Geophysical Union, v. 76, no. 46, p. F707.

Bowring, S.A., Hodges, K.V., Hawkins, D.P., Coleman, D.S., and Davidek, K.L., 1995, Thermochronologic complexities in Proterozoic middle crust and implications for Proterozoic lithospheric evolution, southwestern U.S.: EOS, Transactions of the American Geophysical Union, v. 76, no. 46, p. F708.

Hodges, K.V., Bowring, S.A., Coleman, D.S., Hawkins, D.P., Davidek, K.L., 1995, Multistage thermal history of the 4.0 Ga Acasta gneisses: EOS, Transactions of the American Geophysical Union, v. 76, no. 46, p. F708.

Johnston, T., Thompson, M., Hawkins, D.P., and Bowring, S.A., 1995, U-Pb geochronology of Neoproterozoic Cambridge argillite: Stratigraphic implications in and beyond Boston, MA: Geological Society of America Abstracts with Programs, v. 27, no. 6, p. A-161.

Hawkins, D.P., and Bowring, S.A., 1995, U-Pb geochronological constraints on the origin of Paleoproterozoic migmatites from the Grand Canyon, Arizona, USA: Implications for the timing and duration of peak metamorphism in a high grade terrain: International Conference on Tectonics and Metallogeny of Early/Mid Precambrian Orogenic belts, Precambrian '95, Program and Abstracts, p. 259.

Hawkins, D.P., and Bowring, S.A., 1994, Complex U-Pb systematics of Paleoproterozoic monazite from the Grand Canyon, Arizona, USA, Abstracts of the eighth international conference on geochronology, cosmochemistry and isotope geology: U.S. Geological Survey Circular 1107, p. 131.

Hawkins, D.P., Bowring, S.A., Karlstrom, K.E., 1994, Evidence for pre-1.8 Ga crust in the Upper Granite Gorge, Grand Canyon, Arizona: Implications for the eastern limit of the Mojave Province: Geological Society of America Abstracts with Programs, v. 26, no. 6, p. 17-18.

Karlstrom-K.E., Ilg, B. Hutchison, J. Hawkins, D.P., Bowring, S.A., Williams, M.L., 1994, Paleoproterozoic heterogeneous middle crustal flow during 1.71-1.68 Ga contractional deformation, Grand Canyon, Arizona: Geological Society of America Abstracts with Programs, v. 26, no. 6., p. 22.

Hawkins, D.P., Bowring, S.A., Karlstrom, K.E., Ilg, B.R., 1993, U-Pb geochronologic constraints on early Proterozoic crustal evolution, Upper Granite Gorge, Grand Canyon, Arizona: Geological Society of America Abstracts with Programs, v. 25, no. 6, p. 238.