

CATHY J. BUSBY- CV

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Publications posted at: www.geol.ucsb.edu/faculty/busby

PERSONAL

Three daughters, born 1986 and 1989

PROFESSIONAL PREPARATION:

University of California at Berkeley, Geological Sciences, B.S. 1977

Princeton University, Geological Sciences, Ph.D., 1983

APPOINTMENTS:

Research Scientist, UC Davis, 2015-present

Full Professor, UC Santa Barbara, 1993-2015

Jackson School of Geoscience, University of Texas at Austin, 2010-2011.

U.S. Geological Survey, summer 1997, 1998.

Associate Professor, UCSB, 1988-1993.

Assistant Professor, UCSB, 1982-1988.

Research Associate, Smithsonian Institution, 1980-1989.

Research Assistant, Geochemistry, Caltech, 1981-1982.

Research Assistant, Geology, Princeton University, 1978-1982.

Lab Assistant, K-Ar Laboratory, UC Berkeley, 1976-1977.

THREE NEW NSF AWARDS, 2014:

1. "Outstanding Exposure of Intact Unmetamorphosed Upper to Middle Crustal Oceanic Arc Section, Baja California: Analog to IODP Ultra-Deep Drilling Site, Izu-Bonin Arc", with Sue DeBari.

2. "REU Site: Collaborative Research: Field-based Research on the Gulf of California Rift Margin Basins, Baja California Sur, Mexico", with Tina Niemi

3. "Izu-Bonin rear arc: The Missing Half of the Subduction Factory: Co-Chief Scientist IODP Leg 350 (with Yoshi Tamura).

2016-2017 IODP Distinguished Lecturer

Co-Chief Scientist, IODP Expedition 350, April and May 2014.

Recent IODP Meetings (presenter): Arc Middle Crust (Hawaii, 2012), Chikyu+10 (Tokyo, 2013), IODP Core Description Workshop (College Station) and Brazilian Equatorial Margin (Sao Paulo, 2014).

Fellow of the Geological Society of America

Editorial Board, International Geology Review, July 1, 2013.

Editorial Board, Frontiers In Earth Science, September 18, 2014.

Convenor, Penrose Conference "Origin and Uplift of the Sierra Nevada", August 2010.

Textbook published: Wiley-Blackwell: Recent Advances in Tectonics of Sedimentary Basins (with Antonio Azor), 2012.

Geological Society of America MGPV (Mineralogy Geochemistry Petrology Volcanology) Division Vice Chair, Chair and Past Chair (2009-2012); Committee on Penrose Conferences and Field Forums, 2010-present.

Advisory board member, California Geological Survey.

INVITED TALKS (past 4 years): GSA Tectonic Crossroads (Ankara, Turkey), Texas Bureau of Economic Geology, University of Texas Institute of Geophysics, Jackson School Geology Department, Baylor University, Texas Christian University, University of Houston, University of Barcelona, University of California at Los Angeles, Cal Tech, CSU Bakersfield, Scripps Institution of Oceanography, Lamont Doherty Earth Observatory, UCLA Seismo-Tectonics seminar, UC Davis, University of Sao Paulo Institute of Oceanography, USGS Menlo Park.

TEACHING

Summer Field Camp (Poleta folds, Long Valley, and Sierra Nevada), Field Methods, Volcanic Stratigraphy and Structure, Geological Catastrophes, Tectonics of Sedimentary Basins, Sedimentology and Stratigraphy, Clastic Depositional Environments, Mineralogy and Optical Mineralogy, Geology of Convergent Margins and Continental Rifts, Cordilleran Tectonics, Submarine Volcanism, Turbidite Sedimentology, Sequence Stratigraphy, California Geology, Geology of Mexico, Volcaniclastic Rocks, Physical Volcanology.

STUDENTS IN LAST TEN YEARS:

Grant Yip, MS, 2003 (Exxon Mobil); Noah Garrison, MS, 2004 (Attorney in Environmental Protection); Hilario Camacho, PhD, 2004 (Signal Hill Petroleum); Fabrice Roulet, MS, 2006 (Amarada Hess Petroleum); Stephen DeOreo, MS, 2006; Carolyn Gorny, Senior Honors Thesis, 2008 (PhD student at Otago University); Megan Gambs, Senior Honors Thesis, 2009 (PhD student at University of Washington, Seattle); Jeanette Hagan PhD, 2010 (Exxon Mobil); Alice Koerner MS, 2010 (Chevron); Bryan Murray, PhD, 2014; Catherine Wesolowski, PhD (current).

RECENT & CURRENT POSTDOCTORAL RESEARCHERS:

Graham Andrews (PhD, Leicester University, UK): now Assistant Professor, WVU
Sarah Medynski (PhD, University of Lorraine, France): 2014-2017.

SHORT COURSES:

Tectonics of Sedimentary Basins (with R.V. Ingersoll): A.A.P.G.-S.E.P.M. Annual Meeting, 1996; I. A. S. International Congress, Spain, 1998; A.A.P.G.-S.E.P.M. Annual Meeting, 1998; Second Latinamerican Sedimentological Congress, Argentina, 2000; NORFA North European PhD Training Course, Norway, 2000.

State-of-the-Art Turbidites (with Ben Kneller): Arco British, May 1996; BHP, May 1998.

Submarine Volcanism: Universidad Nacional Autónoma de México, March 2005.

Tectonics and Turbidite Sedimentation: Japanese Oil, Gas and Metals National Corporation, August 2006.

Interpretation of Volcanic Arc Lithofacies: Chilean Geological Survey, March 2011; National University of Columbia, 2013.

CURRENT AND RECENT PROFESSIONAL SERVICE:

Past Chair (2011-2012), Chair (2010-2011) and First Vice Chair (2009 – 2010), Mineralogy Petrology Geochemistry and Volcanology Division of the Geological Society of America.

Penrose Conference Organizer (with Keith Putirka), "Origin and Uplift of the Sierra Nevada", August 16 – 20, 2010.

California Geologic Mapping Advisory Committee, Sacramento (meets twice annually).

National Science and Engineering Council of Canada (NSERC), Earth Sciences, Research Awards Committee, 2007 – 2009.

EDITORSHIPS

Origin of the Sierra Nevada and Walker Lane, K. Putirka and C. Busby (eds.), **December 2011 and in progress, Special Issue of Geosphere** (26 papers published to date).
Recent Advances in Tectonics of Sedimentary Basins, 2012, C.J. Busby and A. Azor (eds.), 32 chapters, Wiley-Blackwell Publishing, 632 pp
Tectonics of Sedimentary Basins, 1995, C.J. Busby and R.V. Ingersoll (eds.), Blackwell Science, Oxford, 579 pp.
Editor (with M. Talbot and S. Burley), *Sedimentology*, 1990-1994 (International Association of Sedimentologists).
Jurassic Magmatism and Tectonics of the North American Cordillera, 1995, D. Miller and C. Busby (eds.), Geological Society of America Special Paper 299, 425 pp.
Sedimentary Geology, 1991, R. Cas and C. Busby-Spera, Special Issue on Volcaniclastic Sedimentation, V. 4, nos. 1-4.

EXTRAMURAL EDUCATIONAL PROGRAMS (LAST TEN YEARS):

SPANISH MINISTRY OF EDUCATION GRANT, 2007 – 2008, University of Granada, Spain, Geodynamics Department: lectures in graduate courses and department seminars, and participation in field research trips in the Betic Cordillera.

AMERICAN ASSOCIATION OF PETROLEUM GEOLOGISTS DISTINGUISHED LECTURER, 2001-2002: six weeks of lectures in the U.S. and Canada.

RECENT ORGANIZED FIELD TRIPS LED:

National Association of Geoscience Teachers, Fall 2006, Fall 2012.
Penrose Conference field trips (2 days formal trips plus 2 days informal trips), “Origin and Uplift of the Sierra Nevada”, August, 2010.
Sierra Nevada Earthscope – Sierra Drip Continental Dynamics Meeting, Central Sierra, Fall 2006.

EXTRAMURAL GRANTS IN PAST TEN YEARS:

IODP Consortium for Ocean Leadership Award, 2014: Izu-Bonin-Mariana Rear Arc: The missing half of the subduction factory (\$175,791).
NSF grant, 2014 - 2018 (with Tina Niemi), “REU Site: Collaborative Research: Field-based Research on the Gulf of California Rift Margin Basins, Baja California Sur, Mexico” (\$504,000).
NSF grant, 2014 – 2017 (with Sue DeBari), “Outstanding Exposure of Intact Unmetamorphosed Upper to Middle Crustal Oceanic Arc Section, Baja California: Analog to IODP Ultra-Deep Drilling Site, Izu-Bonin Arc” (\$273,638 to Busby, \$192,986 to DeBari).
NSF grant, 2011-2013, “Steady State to Flare-Up Arc Magmatism In The Largest Cenozoic Silicic Igneous Province on Earth: The Sierra Madre Occidental, Mexico” (\$220,000).
Spanish Ministry of Education research grant, Spring 2010: “Recent Advances in Tectonics of Sedimentary Basins” (3,000 Euros).
NSF supplemental grant, 2010 - 2013, “Geologic constraints on landscape evolution of the Sierra Nevada, California: Paleochannels, Magmatism and Structure” (\$30,000).

UC Mexus grant (with Elena Centeno Garcia), 2009-2010, Transition from steady state to flareup arc magmatism in the largest Cenozoic silicic igneous and epithermal deposit on Earth: Sierra Madre Occidentale, Mexico (\$25,000).

NSF grant, 2007 - 2010, "Geologic constraints on landscape evolution of the Sierra Nevada, California: Paleochannels, Magmatism and Structure" (\$225,000).

NSF grant (with Keith Putirka, CSUF), 2007 - 2009, Collaborative Research: Origin and Significance of High-Potassium Volcanism: Insights from the Ancestral Cascades Arc, California (\$160,000 to Busby and \$160,000 to Putirka).

GeoEarthScope geochronology grant, 2007 - 2010, "Geologic constraints on landscape evolution of the Sierra Nevada, California: Paleochannels, Magmatism and Structure" (Berkeley Geochronology Center for Busby's dating, \$30,000).

USGS-EDMAP grant, 2009, "Landscape evolution of the Sierra Nevada, California: Paleochannels, magmatism and structure" (\$27,000).

Spanish Ministry of Education research grant, July 2007 – 2008: "Neogene Tectonics and Sedimentation in the Betic Cordillera, Spain" (32,500 Euros).

USGS EDMAP grant, 2006, Spatial Variation in Structural Styles along the Central Sierra Nevada Range Front (California): Clues from Volcanic Stratigraphy (\$15,000).

NSF Grant (PI C. Busby and Co-PI P. Gans), 2002-2005, Miocene Volcanism in the Sierra Nevada, California: Stratigraphy, Volcanology, Geochronology and Structure (\$300,000), collaborative with Ian Skilling (University of Mississippi, \$100,000).

UC Mexus grant, 2005-2006 (with Elena Centeno Garcia, UNAM, Mexico): Exotic vs. Fringing Arcs: Implications for the Growth of Continents (\$15,000 to Busby and \$10,000 to Centeno Garcia).

USGS EDMAP grant, 2005, Geologic Mapping of the Central Sierran Frontal Fault System with Implications for the Tahoe Basin and the Carson City-Bridgeport Population Corridor (\$30,000).

USGS EDMAP grant, 2003, Geologic mapping of Tertiary volcanic-volcaniclastic rocks in the northern Sierra Nevada: Paleotopographic and structural evolution (\$30,000).

INDUSTRY RESEARCH AND EXPLORATION SUPPORT IN PAST FIVE YEARS:

Mighty River Power, New Zealand, 2014: "3D Stratigraphic and Structural Model for the Puchuldiza Geothermal District, Chilean Andes". \$23,000 in research support.

GeoGlobal Energy LLC, 2009-2012, "Volcanic Stratigraphy and Structure of the Puchidiza Geothermal District, Chilean Andes". \$280,000 in research support.

Energy Source LLC, Salton Trough California, Hudson Ranch Geothermal Power Facility: Quaternary to Recent tephros and lava domes, 2010-2011. \$25,000 in research support.

Hannon Armstrong LLC, 2010, "Volcanology of the Eastern Snake River Plain, Idaho", (geothermal exploration). \$30,000 research support.

Paramount Gold and Silver, 2008, "Volcanology and Structural Geology of the Guazapares Mining District, Sierra Madre Occidental, Mexico". \$200,000 in research support.

BOOKS PUBLISHED:

Tectonics of Sedimentary Basins: Recent Advances, 2012, C.J. Busby and A. Azor (eds.), 32 chapters, Wiley-Blackwell Publishing, 632 pp.

Tectonics of Sedimentary Basins, 1995, C.J. Busby and R.V. Ingersoll (eds.), Blackwell Science, Oxford, 579 pp.

PUBLICATIONS (abstracts not listed)

Most papers are posted on my website at: www.geol.ucsb.edu/faculty/busby

Students and postdoctoral researchers in italics

<http://scholar.google.com/citations?user=AYD4j7sAAAAJ>

2016

Busby, Cathy J., *Andrews, Graham D.M., Koerner, Alice K.*, Brown, Sarah R., *Melosh, Benjamin L. and Hagan, Jeanette C.*, 2016, Progressive derangement of ancient (Mesozoic) E-W Nevadaplano paleochannels into modern (Miocene-Recent) NNW trends in the Walker Lane belt, Central Sierra Nevada: Geosphere, Special Issue (*Eds K. Putirka and C. Busby*) "Origin of the Sierra Nevada and Walker Lane", Geological Society of America, v. 12, no. 1, p. 135-175.

Marsaglia, K.M., Barone, M., Critelli, S., Busby, C. and Fackler-Adams, B., 2016, Petrography of volcanoclastic rocks in intra-arc volcano-bounded to fault-bounded basins of the Rosario segment of the Lower Cretaceous Alisitos oceanic arc, Baja California, Mexico: *Sedimentary Geology*, v. 336., p. 138-146.

2015.

Murray, Bryan, and Busby, Cathy, 2015, Epithermal mineralization controlled by synextensional magmatism in the Guazapares Mining District of the Sierra Madre Occidental silicic large igneous province, Mexico: *Journal of South American Earth Sciences*, v. 58, p. 1-18.

Tamura, Y., Busby, C.J., Blum, P., Guèrin, G., Andrews, G.D.M., Barker, A.K., Berger, J.L.R., Bongiorno, E.M., Bordiga, M., DeBari, S.M., Gill, J.B., Hamelin, C., Jia, J., John, E.H., Jonas, A.-S., Jutzeler, M., Kars, M.A.C., Kita, Z.A., Konrad, K., Mahoney, S.H., Martini, M., Miyazaki, T., Musgrave, R.J., Nascimento, D.B., Nichols, A.R.L., Ribeiro, J.M., Sato, T., Schindlbeck, J.C., Schmitt, A.K., Straub, S.M., Vautravers, M.J., and Yang, Y., 2015. Expedition 350 summary. *In* Tamura, Y., Busby, C.J., Blum, P., and the Expedition 350 Scientists, *Proceedings of the International Ocean Discovery Program, Expedition 350: Izu-Bonin-Mariana Rear Arc*: College Station, TX (International Ocean Discovery Program). <http://dx.doi.org/10.14379/iodp.proc.350.101.2015>

Tamura, Y., Busby, C.J., Blum, P., Guèrin, G., Andrews, G.D.M., Barker, A.K., Berger, J.L.R., Bongiorno, E.M., Bordiga, M., DeBari, S.M., Gill, J.B., Hamelin, C., Jia, J., John, E.H., Jonas, A.-S., Jutzeler, M., Kars, M.A.C., Kita, Z.A., Konrad, K., Mahoney, S.H., Martini, M., Miyazaki, T., Musgrave, R.J., Nascimento, D.B., Nichols, A.R.L., Ribeiro, J.M., Sato, T., Schindlbeck, J.C., Schmitt, A.K., Straub, S.M., Vautravers, M.J., and Yang, Y., 2015. Expedition 350 methods. *In* Tamura, Y., Busby, C.J., Blum, P., and the Expedition 350 Scientists, *Proceedings of the International Ocean Discovery Program, Expedition 350: Izu-Bonin-Mariana Rear Arc*: College Station, TX (International Ocean Discovery Program). <http://dx.doi.org/10.14379/iodp.proc.350.102.2015>

Tamura, Y., Busby, C.J., Blum, P., Guèrin, G., Andrews, G.D.M., Barker, A.K., Berger, J.L.R., Bongiorno, E.M., Bordiga, M., DeBari, S.M., Gill, J.B., Hamelin, C., Jia, J., John, E.H., Jonas, A.-S., Jutzeler, M., Kars, M.A.C., Kita, Z.A., Konrad, K., Mahoney, S.H., Martini, M., Miyazaki, T., Musgrave, R.J., Nascimento, D.B.,

- Nichols, A.R.L., Ribeiro, J.M., Sato, T., Schindlbeck, J.C., Schmitt, A.K., Straub, S.M., Vautravers, M.J., and Yang, Y., 2015. Site U1436. *In* Tamura, Y., Busby, C.J., Blum, P., and the Expedition 350 Scientists, *Proceedings of the International Ocean Discovery Program, Expedition 350: Izu-Bonin-Mariana Rear Arc*: College Station, TX (International Ocean Discovery Program). <http://dx.doi.org/10.14379/iodp.proc.350.103.2015>
- Tamura, Y., Busby, C.J., Blum, P., Guèrin, G., Andrews, G.D.M., Barker, A.K., Berger, J.L.R., Bongiolo, E.M., Bordiga, M., DeBari, S.M., Gill, J.B., Hamelin, C., Jia, J., John, E.H., Jonas, A.-S., Jutzeler, M., Kars, M.A.C., Kita, Z.A., Konrad, K., Mahoney, S.H., Martini, M., Miyazaki, T., Musgrave, R.J., Nascimento, D.B., Nichols, A.R.L., Ribeiro, J.M., Sato, T., Schindlbeck, J.C., Schmitt, A.K., Straub, S.M., Vautravers, M.J., and Yang, Y., 2015. Site U1437. *In* Tamura, Y., Busby, C.J., Blum, P., and the Expedition 350 Scientists, *Proceedings of the International Ocean Discovery Program, Expedition 350: Izu-Bonin-Mariana Rear Arc*: College Station, TX (International Ocean Discovery Program). <http://dx.doi.org/10.14379/iodp.proc.350.104.2015>
- 2014**
- Murray, Bryan, and Busby, Cathy, and de los Angeles Verde Ramírez, María, 2014, Extension and magmatism in the Cerocahui basin, northern Sierra Madre Occidental, western Chihuahua, Mexico: *International Geology Review*, p. 1-25 DOI 10.1080/00206814.2014.941022
- Tamura, Y., Busby, C.J., Blum, P., and the Expedition 350 Scientists, 2015. *Proceedings of the International Ocean Discovery Program, Expedition 350: Izu-Bonin-Mariana Rear Arc*: College Station, TX (International Ocean Discovery Program). <http://dx.doi.org/10.14379/iodp.proc.350.2015>
- Expedition 350 Scientists, 2014. Izu-Bonin-Mariana rear arc: the missing half of the subduction factory. *International Ocean Discovery Program Preliminary Report*, 350. <http://dx.doi.org/10.14379/iodp.pr.350.2014>
- 2013**
- Tamura, Y., Busby, C., and Blum, P., 2013. Izu-Bonin-Mariana Rear Arc: the missing half of the subduction factory. *International Ocean Discovery Program Scientific Prospectus*, 350. <http://dx.doi.org/10.2204/iodp.sp.350.2013>
- Busby, Cathy, Koerner, Alice, Melosh, Ben, Andrews, Graham and Hagan, Jeanette, 2013a, Sierra Crest graben-vent system: A Walker Lane pull apart within the ancestral Cascades arc: *Geosphere*, Special Issue (Eds K. Putirka and C. Busby) "Origin of the Sierra Nevada and Walker Lane", Geological Society of America, v. 9, no. 4, p. 736-780; doi: 12.1130/GES00670.1
- Busby, Cathy, Hagan, Jeanette, and Renne, Paul, 2013b, Initiation of Sierra Nevada range front - Walker Lane faulting at ~12 Ma in the ancestral Cascades arc: *Geosphere*, Special Issue *Geosphere* (Eds K. Putirka and C. Busby) "Origin of the Sierra Nevada and Walker Lane", Geological Society of America, v. 9, no. 5, p. 1-22. doi: 10.1130/GES00927.1
- Murray, B., Busby, C.J., Ferrari, L., and Solari, L.A., 2013, Synvolcanic crustal extension during the mid-Cenozoic ignimbrite flare-up in the northern Sierra Madre pp. Occidental, Mexico: Evidence from the Guazapares Mining District region. *Western Chihuahua: Geosphere*, Special Issue (Eds K. Putirka and C. Busby) "Origin of the Sierra Nevada and Walker Lane", Geological Society of America, v. 9, no. 5, 35 pp. doi:10.1130/GES00862.1
- Busby, Cathy, 2013, Birth of a plate boundary at ~12 Ma in the Ancestral Cascades arc, Walker Lane belt of California and Nevada: *Geosphere*, Special Issue (Eds K.

Putirka and C. Busby) "Origin of the Sierra Nevada and Walker Lane", Geological Society of America, v. 9, no. 5, p. 1147-1160., doi:10.1130/GES00928.1

2012

Busby, Cathy J., *Koerner, Alice, Hagan, Jeanette, and Andrews, Graham*, 2012, Sierra Crest graben: a Miocene Walker Lane Pull-apart in the Ancestral Cascades Arc at Sonora Pass, *in*, N. Hughes and Garry Hayes (eds), Geological Excursions in the Sonora Pass Region of the Sierra Nevada, Far Western Section, National Association of Geoscience Teachers field guide, Fall 2012 (<http://nagt-fws.org/>), p. 8-36.

Busby, Cathy, 2012, Extensional and transtensional continental arc basins: Case studies from the southwestern United States: *in*, C. Busby and A. Azor (eds), Tectonics of Sedimentary Basins: Recent Advances, Wiley-Blackwell, p. 382-404.

2011

Putirka, K.D. and Busby, C.J., 2011, Introduction: Origin of the Sierra Nevada and Walker Lane: *In*, K. Putirka and C. Busby (eds), Geosphere Special Issue: Origin of the Sierra Nevada and Walker Lane; Geological Society of America, v. 7, p. 1269-1272.

Centeno-Garcia, E., Busby, C., *Busby, M.*, Talavera, O. and Gerhels, G., 2011, Evolution of the Cretaceous Guerrero terrane along the Mexican margin, from extensional arc through retroarc to continental arc settings: Geological Society of America Bulletin, v. 123, no. 9/10, p. 1776-1797, doi:10.1130/B30057.1

2010

Busby, C.J. and Putirka, K., Penrose Conference Report: Origin and Uplift of the Sierra Nevada, California, USA: GSA Today, Geological Society of America, v. 20, no. 12, p. 18-20.

2009

Busby, C.J. and Putirka, K., 2009, Miocene evolution of the western edge of the Nevadaplano in the central and northern Sierra Nevada: Paleocanyons, magmatism and structure: *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 7 – 8, p. 670-70

Gorny, C., Busby, C., Pluhar, C., Hagan, J., and Putirka, K., 2009, An in-depth look at distal Sierra Nevada paleochannel fill: drill cores through the Table Mountain latite near Knight's Ferry: *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 824-842.

Pluhar, C., Deino, A., King, N., Busby, C., Hausback, B., Wright, T., and Fischer, C., 2009, Lithostratigraphy, magnetostratigraphy, geochronology and radiometric dating of the Stanislaus Group, CA, and age of the Little Walker Caldera: *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 873-899.

Hagan, J., Busby, C., Renne, P., and Putirka, K., 2009, Cenozoic evolution of paleochannels, Ancestral Cascades magmas, and range-front faults in the Kirkwood - Carson Pass - Markleville region (Central Sierra Nevada): *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 777-823.

Koerner, A., Busby, C., Putirka, K., and Pluhar, C., 2009, New evidence for alternating effusive and explosive eruptions from the type section of the Stanislaus Group in the "cataract" paleocanyon, central Sierra Nevada (CA): *in*, Gary Ernst, editor, The Rise and Fall of the Nevadaplano, International Geology Reviews, v. 51, nos. 9-11, p. 962-985.

2008

- Busby, C., *DeOreo*, S., Skilling, I., Gans, P., and *Hagan*, J., 2008, Carson Pass-Kirkwood paleocanyon system: implications for the Tertiary evolution of the Sierra Nevada, California: Geological Society of America Bulletin, v. 120, no. 3/4, p. 274-299.
- Busby, C.J., *Hagan*, J., Putirka, K., Pluhar, C., Gans, P., *Rood*, D., *DeOreo*, S., Skilling, I. and Wagner, D., 2008, The ancestral Cascades arc: Implications for the development of the Sierran microplate and tectonic significance of high K₂O volcanism: in, J. Wright and J. Shervais (eds), Ophiolites, Arcs and Batholiths: Geological Society of America Special Paper 438, p. 331-378.
- Garrison*, N., Busby, C.J., Gans, P.B., Putirka, K. and Wagner, D.L., 2008, A mantle plume beneath California? The mid-Miocene Lovejoy flood basalt, northern California: in, J. Wright and J. Shervais (eds), Ophiolites, Arcs and Batholiths: Geological Society of America Special Paper 438, p. 551-572.
- Saleeby, J., Ducea, M.N., Busby, C., Nadin, E., and Whetmore, P.H., 2008, Chronology of pluton emplacement and regional deformation in the southern Sierra Nevada batholith, California: in, J. Wright and J. Shervais (eds), Ophiolites, Arcs and Batholiths: Geological Society of America Special Paper 438, p. 397 – 428.
- Busby, C.J., "Geology of the Sierra Madre Occidental, Mexico", Large Igneous Province of the Month, posted on the IAVCEI website:
<http://www.largeigneousprovinces.org/08nov.html>

2007

- Busby, C.J. and *Bassett*, K., 2007, Volcanic facies architecture of an intra-arc strike-slip basin, Santa Rita Mountains, Arizona: Bulletin of Volcanology, v. 70, no. 1, p. 85 – 103.
- Putirka, K., and Busby, C.J., 2007, The tectonic significance of high K₂O volcanism in the Sierra Nevada, California: Geology, V. 35, no. 10, p. 923 – 926.
- Purucker, M., Le, G., Sabaka, T., Slavin, J., Strangeway, R., and Busby, C., 2007, Magnetic field gradients from the ST-5 constellation: Improving magnetic and thermal models of the lithosphere: Geophysical Research Letters, v. 34, L24306, doi:10.1029/2007GL031739

2006

- Busby, C. J., *Fackler Adams*, B., Mattinson, J., and *De Ore*, S., 2006, View of an intact oceanic arc, from surficial to mesozonal levels: Cretaceous Alisitos Arc, Baja California, Mexico: Journal of Volcanology and Geothermal Research, v. 149, p.1 - 46.
- Busby, C.J. and Wagner. D., 2006, Mapping of Cenozoic volcanic rocks in the central high Sierra: clues to understanding landscape evolution and range-front faulting: National Association of Geoscience Teachers, Guidebook, 60 pp.

2005

- Busby, C.J., 2005, Possible distinguishing characteristics of deepwater silicic volcanism: Geology, v. 33, no. 11, p. 845-848.
- Busby, C.J., *Bassett*, K., Steiner, M.B. and *Riggs*, N.R., 2005, Climatic and tectonic controls on Jurassic intra-arc basins related to northward drift of North America, in, T.H. Anderson, J.A. Nourse, J.W. McKee and M.B. Steiner, (eds), The Mojave-Sonora megashear hypothesis: Development, assessment, and alternatives: Geological Society of America Special Paper 393, p. 359-376.
- Bassett*, K. and Busby, C., 2005, Structure and tectonic setting of an intra-arc strike-slip basin (Bisbee Basin, Southern Arizona): in, T.H. Anderson, J.A. Nourse, J.W. McKee and M.B. Steiner, (eds), The Mojave-Sonora megashear hypothesis: Development, assessment, and alternatives: Geological Society of America Special Paper 393, p. 359-376.

2004

- Busby, C.J., 2004, Continental growth at convergent margins facing large ocean basins: a case study from Mesozoic Baja California, Mexico: *Tectonophysics*, v. 392, p. 241-277.
- Busby, C.J., Skilling, I., *Rood, D., DeOreo, S.* and Gans, P., 2004, Cenozoic volcanology and structural geology of the Carson Pass – Sonora Pass areas, Central Sierra Nevada, California: Field Guide, Volcanological Society of Sacramento Annual Field Trip, July 21-25, 2004.

2003

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