

Curriculum Vitae

Kathleen R. Johnson

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Highlights

- Paleoclimate expertise: Stable isotope and trace element geochemistry; Radiocarbon and U-series geochronology; Cave monitoring; Leading remote field campaigns in Mexico and Southeast Asia; Stable isotopes in precipitation; Modern and past climate dynamics; Director of Center for Isotope Tracers in Earth Sciences at UCI; President of AGU Paleooceanography & Paleoclimatology section.
- Justice, Equity, Diversity, and Inclusion (JEDI) expertise: Equity Advisor for the School of Physical Sciences (2021- present); ESS Department Vice-Chair for Diversity, Equity, and Inclusion (2019 – 2021); PI and Director of \$1.2M NSF-funded American Indian Summer Institute in Earth System Science at UCI (2011-2017); Faculty Mentor for NSF-funded AISES Lighting the Pathway to Faculty Careers in STEM (2016-present); Co-Leader for UCI End Racism Initiative Working Group; Organizer of Anti-Racism in Geosciences workshops; Facilitator for Equity in Graduate Admissions workshops; AGU LANDInG Academy Fellow; PI and Director of \$7.5M NSF-funded CLIMATE Justice Initiative (2023-2027).

Education

PhD, Geology, University of California, Berkeley	2004
BS, Geological Sciences, University of Michigan	1996

Academic Positions

University of California, Irvine, Dept. of Earth System Science, School of Physical Sciences	
Equity Advisor for School of Physical Sciences	2021 - present
Professor	2023 - present
Associate Professor	2014 - 2023
Vice-Chair for Diversity, Equity, and Inclusion	2019-2021
Assistant Professor	2007-2014
University of Oxford, UK	
Lecturer in Earth Science, Jesus College	2006-2007
Postdoctoral Research Fellow, Dept. of Earth Sciences	2004-2007

Professional Memberships

American Association for the Advancement of Science (AAAS)
American Geophysical Union (AGU; President-Elect of Paleo/Paleo section 2021-2022)
American Indian Science and Engineering Society (AISES)
Earth Science Women's Network (ESWN)
Geochemical Society (GS)
Geological Society of America (GSA; Fellow)
Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS)

Awards and Honors

- AGU Landing Academy Fellow (2021-2023)
- 2018-2019 UCI Inclusive Excellence Spirit Award for “UCI Natural Reserves and Building Relationships with Native Nations as Kuuyam (guests) on Indigenous Homelands.”
- College-Level Promotion of Education Award, 2018 Women of Color in STEM Conference, Career Communications Group, Inc.
- 2017-2018 UCI Inclusive Excellence Spirit Award for “Cultivating Consciousness in Acjachemen and Tongva Homelands”
- Fellow of the Geological Society of America (elected April 2017)
- 2016 Randolph W. "Bill" and Cecile T. Bromery, Geological Society of America (Sept. 25th, 2016)
- Chancellor’s Award for Excellence in Fostering Undergraduate Research, University of California, Irvine. (May 18, 2013).
- Outstanding Contributions to Undergraduate Education, School of Physical Sciences. (May 2012).
- Outstanding Contributions to Undergraduate Education, School of Physical Sciences. (May 2010).
- Gary Comer Abrupt Climate Change Foundation Postdoctoral Fellowship. (August 2004 - June 2007).
- Graduate Student Research Grant, Geological Society of America. (2002).
- Scholarship in Geochronology, Berkeley Geochronology Center. (1999 - 2002).
- NSF Earth System History Fellowship, NSF. (1999).
- Karst Research Fellowship, Cave Research Foundation. (1999).
- Graduate Opportunity Fellowship, University of California, Berkeley. (1997 - 1999).

Publications (*student or post-doctoral advisee)

Journal Articles, Peer-Reviewed

51. Wolf, A.*, Baker, J.L., Tjallingii, R., Cai, Y., Osinzev, A., Antonosyan, M., Amano, N., **Johnson, K.R.**, Skiba, V., McCormack, J. and Kwiecien, O. (2024). Western Caucasus regional hydroclimate controlled by cold-season temperature variability since the Last Glacial Maximum. *Communications Earth & Environment*, 5(1), p.66.
50. Parvez, Z.A., El-Shenawy, M.I., Lucarelli, J.K., Kim, S.T., **Johnson, K.R.**, Wright, K.*, Gebregiorgis, D., Montanez, I.P., Wortham, B., Asrat, A. and Reinhardt, E., 2024. Dual carbonate clumped isotope ($\Delta 47$ - $\Delta 48$) measurements constrain different sources of kinetic isotope effects and quasi-equilibrium signatures in cave carbonates. *Geochimica et Cosmochimica Acta*, 366, pp.95-112.

49. Wood, C.T.*, **Johnson, K.R.**, Lewis, L.E.*, Wright, K., Wang, J.K.*, Borsato, A., Griffiths, M.L., Mason, A., Henderson, G.M., Setera, J.B. and Frisia, S. (2023). High-Resolution, Multiproxy Speleothem Record of the 8.2 ka Event From Mainland Southeast Asia. *Paleoceanography and Paleoclimatology*, 38(12), p.e2023PA004675.
48. Wolf, A.*, Ersek, V., Braun, T., French, A.D., McGee, D., Bernasconi, S.M., Skiba, V., Griffiths, M.L., **Johnson, K.R.**, Fohlmeister, J. and Breitenbach, S.F., 2023. Deciphering local and regional hydroclimate resolves contradicting evidence on the Asian monsoon evolution. *Nature Communications*, 14(1), p.5697.
47. Patterson, E. W.* , **Johnson, K. R.**, Griffiths, M. L., Kinsley, C. W., McGee, D., Du, X., ... & Đinh, T. H. (2023). Glacial changes in sea level modulated millennial-scale variability of Southeast Asian autumn monsoon rainfall. *Proceedings of the National Academy of Sciences*, 120(27), e2219489120.
46. Wright, K. T.* , **Johnson, K. R.**, Marks, G. S., McGee, D., Bhattacharya, T., Goldsmith, G. R., ... & Beramendi-Orosco, L. (2023). Dynamic and thermodynamic influences on precipitation in Northeast Mexico on orbital to millennial timescales. *Nature Communications*, 14(1), 2279.
45. Wang, M., Hu, C.Y., Liu, Y., Li, L., Xie, S., **Johnson, K.R.** (2022). Precipitation in eastern China over the past millennium varied with large-scale climate patterns. *Communications: Earth & environment*, 3(1), 321.
44. Wright, K.T.* , **Johnson, K.R.**, Bhattacharya, T., Marks, G.S., McGee, D., Elsbury, D., Peings, Y., Lacaille-Muzquiz, J.L., Lum, G., Beramendi-Orosco, L., Magnúsdóttir, G. (2022). Precipitation in Northeast Mexico Primarily Controlled by the Relative Warming of Atlantic SSTs. *Geophysical Research Letters*, 49(11), e2022GL098186.
43. **Johnson, K. R.** (2021). California's Volatile Hydroclimate: Lessons From the Paleoclimate Record. *Geophysical Research Letters*, 48(23), e2021GL095512.
42. **Johnson, K.R.** (2021). Hydroclimate reconstructions from speleothems. *Elements Magazine*, 17(2), 93-100.
41. Feinberg, J.M. and **Johnson, K.R.** (2021). Cave and speleothem science: From local to planetary scales. *Elements Magazine*, 17(2), 81-86.
40. Lu, J., Yang, H., Griffiths, M.L., Burls, N.J., Xiao, G., Yang, J., Wang, J.K., **Johnson, K.R.** and Xie, S. (2021). Asian monsoon evolution linked to Pacific temperature gradients since the Late Miocene. *Earth and Planetary Science Letters*, 563, p.116882.
39. Wolf, A., Roberts, W.H.G., Ersek, V., **Johnson, K.R.**, Griffiths, M.L. (2020). Rainwater isotopes in central Vietnam controlled by two oceanic moisture sources and rainout effects. *Scientific Reports*, 10:16482.
38. Comas-Bru, L., Rehfeld, K., Roesch, C., Amirnezhad-Mozhdehi, S., Harrison, S. P., Atsawawaranunt, K., Breitenbach, S. F.,.....and **SISAL members** (2020). SISALv2: A

- comprehensive speleothem isotope database with multiple age-depth models. *Earth System Science Data*, 12, 2579-2606.
37. Griffiths, M.L.[†], **Johnson, K.R.**[†], Pausata, F.S.R., White, J.C., Henderson, G.M., Wood, C.T.* , Yang, H.* , Ersek, V., Conrad, C., Sekhon, N.* (2020). End of Green Sahara amplified mid-to late Holocene megadroughts in mainland Southeast Asia. *Nature Communications*, 11(1). (Featured in *Nature Communications Editor's Highlights*: <https://www.nature.com/collections/eihfbddfacc>) [†]Contributed equally to this work.
 36. Gutierrez-Garcia, G., Beramendi-Orosco, L.E., **Johnson, K.R.** (2020). Climate-growth relationships of *Pinus pseudostrobus* from a tropical mountain cloud forest in northeast Mexico. *Dendrochronologia*, 125749.
 35. Wang, Y., Hu, C., Ruan, J., **Johnson, K.R.** (2020). East Asian precipitation $\delta^{18}\text{O}$ relationship with various monsoon indices. *Journal of Geophysical Research: Atmospheres*, 125(13), e2019JD032282.
 34. Cottone, C. M. M., Lu, S., Wu, Y. X., Guan, K., Yoon, R., Limfueco, L., ... & Patel, R. M. (2020). Surface-Treated Pellethanes: Comparative Quantification of Encrustation in Artificial Urine Solution. *Journal of Endourology*, 34(8).
 33. Wang, J.K.* , Yu, J.Y., **Johnson, K.R.** (2020). Pacific and Atlantic controls of the relationship between Mainland Southeast Asian and East China interannual precipitation variability. *Climate Dynamics*, 1-14.
 32. Aarons, S.M.* , Arvin, L.J., Aciego, S.M., Riebe, C., **Johnson, K.R.**, Blakowski, M.A., Koornneef, J.M., Hart, S.C., Barnes, M.E., Dove, N., Botthoff, J.K., Maltz, M., Aronson, E.L. (2019). Competing droughts affect dust delivery to Sierra Nevada. *Aeolian Research*, 41, 100545.
 31. Wang, J. K.* , **Johnson, K. R.**, Borsato, A., Amaya, D.J., Griffiths, M. L., Henderson, G. M., Frisia, S., Mason, A. (2019). Hydroclimatic variability in Southeast Asia over the past two millennia. *Earth and Planetary Science Letters*, 525, 115737.
 30. Carlson, P.E., Banner, J.L., **Johnson, K.R.**, Casteel, R.C., Breecker, D.O. (2019). Carbon cycling of subsurface organic matter recorded in speleothem ^{14}C records: Maximizing bomb-peak model fidelity. *Geochimica et Cosmochimica Acta*, 246, 436-439.
 29. Beramendi-Orosoco, L.E., **Johnson, K.R.**, Noronha, A.L.* , González-Hernández, G., Villanueva-Díaz, J. (2018). High precision radiocarbon concentrations in tree rings from Northeastern Mexico: A new record with annual resolution for dating the recent past. *Quaternary Geochronology*, 48, 1-6
 28. Bergel, S., Carlson, P. E., Larson, T. E., Wood, C. T.* , **Johnson, K. R.**, Banner, J. L., Breecker, D. O. (2017). A subsoil carbon source to cave-air CO_2 and speleothem calcite in central Texas. *Geochimica et Cosmochimica Acta*, Volume 217, 112-127.
 27. Ng, J. Y., Williams, B., Thompson, D. M., Mayne, C., Halfar, J., Edinger, E., **Johnson, K. R.** (2016). Assessing multi-site $\delta^{18}\text{O}$ -climate calibrations of the coralline alga *Clathromorphum*

- across the high-latitude Northern Hemisphere, *Geochimica et Cosmochimica Acta*, 194, 279–290.
26. McCabe-Glynn, S.* , **Johnson, K. R.**, Strong, C., Zou, Y., Yu, J.-Y., Sellars, S., Welker, J. M. (2016). Isotopic signature of extreme precipitation events in the western US and associated phases of Arctic and tropical climate modes. *Journal of Geophysical Research: Atmospheres*, 121(15), 8913–8924.
 25. Yang, H*., **Johnson, K. R.**, Griffiths, M., Yoshimura, K. (2016). Interannual controls on oxygen isotope variability in Asian monsoon precipitation and implications for paleoclimate reconstructions. *Journal of Geophysical Research: Atmospheres*, 121(14), 8410–8428.
 24. Griffiths, M. L*., Kimbrough, A. K., Gagan, M. K., Drysdale, R. N., Cole, J. E., **Johnson, K. R.**, Zhao, J.-X., Cook, B. I., Hellstrom, J. C., Hantoro, W. S. (2016). Western Pacific hydroclimate linked to global climate variability over the past two millennia. *Nature Communications*, 7.
 23. Noronha, A. L.* , **Johnson, K. R.**, Southon, J. R., Hu, C., Ruan, J., McCabe-Glynn, S.* (2015). Radiocarbon evidence for decomposition of aged organic matter in the vadose zone as the main source of speleothem carbon. *Quaternary Science Reviews*, 127, 37-47.
 22. Baker, A., Sodemann, H., Baldini, J. U.L., Breitenbach, S. F.M., **Johnson, K. R.**, van Hunen, J., Zhang, P. (2015). Seasonality of westerly moisture transport in the East Asian Summer Monsoon and its implications for interpreting precipitation $\delta^{18}\text{O}$. *Journal of Geophysical Research: Atmospheres*, 120(12), 5850–5862.
 21. Noronha, A. L.* , **Johnson, K. R.**, Hu, C., Ruan, J., Southon, J., Ferguson, J. E. (2014). Assessing influences on speleothem dead carbon variability over the Holocene: implications for speleothem-based radiocarbon calibration. *Earth and Planetary Science Letters*, 394, 20-29.
 20. McCabe-Glynn, S.* , **Johnson, K. R.**, Strong, C., Berkelhammer, M., Sinha, A., Cheng, H., Edwards, R. L. (2013). Variable North Pacific influence on drought in southwestern North America since AD 854. *Nature Geoscience*, 6, 617 - 621.
 19. Ferguson, J.** , **Johnson, K. R.**, Santos, G., Meyer, L., Tripathi, A. (2013). Investigating $\delta^{13}\text{C}$ and $\Delta^{14}\text{C}$ within *Mytilus californianus* shells as proxies of upwelling intensity. *G-cubed: Geochemistry, Geophysics, Geosystems*, 14(6), 1856 - 1865.
 18. Liu, Y. H., Henderson, G. M., Hu, C., Mason, A., Charnley, N., **Johnson, K. R.**, Xie, S. (2013). Links between the East Asian monsoon and North Atlantic climate during the 8,200 year event. *Nature Geoscience*, 6, 117-120.
 17. Griffiths, M. L.** , Fohlmeister, J., Drysdale, R. N., Hua, Q., **Johnson, K. R.**, Hellstrom, J. C., Gagan, M., Zhao, J. (2012). Hydrological control of the dead carbon fraction in a Holocene tropical speleothem. *Quaternary Geochronology*, 14, 81-93.
 16. Doezema, L., Longin, T., Cody, W., Perraud, V., Dawson, M., Ezell, M., Greaves, J., **Johnson, K. R.**, Finlayson-Pitts, B. J. (2012). Analysis of secondary organic aerosols in air using

- extractive electrospray ionization mass spectrometry (EESI-MS). *RSC Advances*, 2(7), 2930-2938.
15. Berkelhammer, M., Stott, L., Yoshimura, K., **Johnson, K. R.** (2012). Synoptic and mesoscale controls on the isotopic composition of individual storms systems striking the western US. *Climate Dynamics*, 38(3-4), 433-454. 0930-7575.
 14. **Johnson, K. R.** (2011). Palaeoclimate: Long Distance Relationship. [News and Views on Pausata, F., Battisti, D., Nisancioglu, K., Bitz, C., Chinese stalagmite ^{18}O controlled by changes in the Indian monsoon during a simulated Heinrich event. Nature Geoscience. 2011]. *Nature Geoscience*, 4, 426-427.
 13. Santos, G. M., Ferguson, J.**, Acaylar, K., **Johnson, K. R.**, Griffin, S., Druffel, E. R.M. (2011). $\Delta^{14}\text{C}$ and $\delta^{13}\text{C}$ of seawater DIC as tracers of coastal upwelling: A 5-year time series from Southern California. *Radiocarbon*, 43(4), 669-677.
 12. Lee, J.-E., **Johnson, K. R.**, Fung, I. (2009). Precipitation over South America during the Last Glacial Maximum: An analysis of the “amount effect” with a water isotope-enabled general circulation model. *Geophysical Research Letters*, 36(L19701).
 11. Zhang et al. (2008). A Test of Climate, Sun, and Culture Relationships from an 1810-Year Chinese Cave Record. *Science*, 322, 940-942.
 10. Hu, C. Y., Henderson, G. M., Huang, J. H., Chen, Z. H., **Johnson, K. R.** (2008). Report of a three-year monitoring programme at Heshang Cave, Central China. *International Journal of Speleology*, 37(3), 143-151.
 9. Liu et al. (2008). Asian summer monsoon precipitation recorded by stalagmite oxygen isotopic composition in the western Loess Plateau during AD1875-2003 and its linkage with ocean-atmosphere system. *Chinese Science Bulletin*, 53, 2041-2049.
 8. Lewis, H. A., **Johnson, K. R.**, Ronquillo, W.(2008) Preliminary results of speleothem dating from Tabon Cave, Palawan, Philippines: moisture increase at the Last Glacial Maximum. *Hukay*.
 7. Hu, C., Henderson, G. M., Huang, J. H., Xie, S. C., **Johnson, K. R.** (2008). Quantification of Holocene Asian monsoon rainfall from spatially separated cave records. *Earth and Planetary Science Letters*, 266, 221-232.
 6. Yang, X. L., Zhang, P. Z., Chen, F. H., Huh, C. A., Li, H. C., Cheng, H., **Johnson, K. R.**, Liu, J. H., An, C. L. (2007). Modern stalagmite oxygen isotopic composition and its implications of climatic change from a high-elevation cave in the eastern Qinghai-Tibet Plateau over the past 50 years. *Chinese Science Bulletin*, 52, 1238-1247.
 5. **Johnson, K. R.**, Hu, C. Y., Belshaw, N. S., Henderson, G. M. (2006). Seasonal trace-element and stable-isotope variations in a Chinese speleothem: The potential for high-resolution paleomonsoon reconstruction. *Earth and Planetary Science Letters*, 244, 394-407.

4. **Johnson, K. R.**, Ingram, B. L., Sharp, W. D., Zhang, P. Z. (2006). East Asian summer monsoon variability during Marine Isotope Stage 5 based on speleothem delta O-18 records from Wanxiang Cave, central China. *Palaeogeography Palaeoclimatology Palaeoecology*, 236, 5-19.
3. **Johnson, K. R.**, Ingram, B. L. (2004). Spatial and temporal variability in the stable isotope systematics of modern precipitation in China: implications for paleoclimate reconstructions. *Earth and Planetary Science Letters*, 220, 365-377.
2. Zhang, P., **Johnson, K. R.**, Chen, Y., Chen, F., Ingram, B. L., Zhang, X., Zhang, C., Wang, S., Pang, F., Long, L. (2004). Modern systematics and environmental significance of stable isotopic variations in Wanxiang Cave, Wudu, Gansu, China. *Chinese Science Bulletin*, 49, 1649-1652.
1. Yang, B., Braeuning, A., **Johnson, K. R.**, Shi, Y. F. (2002). General characteristics of temperature variation in China during the last two millennia. *Geophysical Research Letters*, 29.

Other publications (commentaries/perspectives, encyclopedia articles, white papers, reports)

4. **Johnson, K.R.** and Banner, J. (2017). Climate Change: The Karst Record (KR8) conference. *Past Global Changes Magazine*, 25(3), 164. <https://doi.org/10.22498/pages.25.3.164>.
3. Betancourt, J., Caballero-Gill, R.P., Groff, D., Hillman, A., **Johnson, K.R.**, Kohler, T.A., McLauchland, K., Williams, J. (2018). Paleoclimatology: Understanding Earth's Climate Future. Outcomes of the NSF EarthRates RCN All Hands Science Priorities Workshop. November 10-100, 2017; Minneapolis, MN.
2. **Johnson, K. R.** (2007). Paleoclimate. In B. W. Lerner, K. L. Lerner (Eds.), *Climate Change: In Context*, Cengage Gale.
1. **Johnson, K. R.** (2006). Caves and Climate Change. In Blumel et al. (Eds.), *Yearbook of Science & Technology*, 2006, (pp. 52-55). New York, NY: McGraw-Hill Professional.

Conference abstracts

67. Pahl, B.L.* , **Johnson, K.R.**, Wright, K.T., Serrato Marks, G., Jost, A., McGee, D., Beramendi-Orosco, L., Sanchez-Armass, S., Cancino, J. Hydroclimate variability of Northeast Mexico during the Eemian interglacial (128 kya). *Climate Change: The Karst Record IX*, Innsbruck, Austria.
66. Patterson, E.W.* , **Johnson, K.R.**, Griffiths, M.L., Kinsley, C.W., McGee, D., Du, X., Pico, T., Ersek, V., Yamoah, K., Bui, T., Xuan, M. Glacial changes in sea level modulated millennial-scale variability of the Southeast Asian autumn monsoon. *Climate Change: The Karst Record IX*, Innsbruck, Austria.
65. Wolf, A.* , Ersek, V., Braun, T., French, A., McGee, D., Bernasconi, S., Skiba, V., Griffiths, M.L., **Johnson, K.R.**, Fohlmeister, J., Breitenbach, S., Pausata, F.S.R., Tabor, C., Longman, J.,

- Roberts, W., Chandan, D., Peltier, W.R., Salzmann, U., Limbert, D., Trinh, D. Drivers of Southeast Asian monsoon variability during the Holocene. *Climate Change: The Karst Record IX*, Innsbruck, Austria.
64. **Johnson, K.R.**, St. John, K., Koppes, M., Brigham-Grette, J., Torn, M., Reimers, C., Newman, P., Jagannathan, K., Guimond, J., Hills, D., Tripathi, A. Toward increasing justice, equity, diversity, and inclusion (JEDI) and community engagement in climate research: Challenges, opportunities, and successes. AGU Fall Meeting Abstracts 2021. AGU Fall Meeting.
63. Wright, K.* , **Johnson, K.R.**, Bhattacharya, T., Serrato Marks, G., McGee, D., Elsbury, D., Peings, Y., Lacaille Muzquiz, J., Beramendi-Orosco, L. Northeast Mexico precipitation primarily controlled by Atlantic SSTs. AGU Fall Meeting Abstracts 2021. AGU Fall Meeting.
62. Wolf, A.* , Ersek, V., Bernasconi, S., Braun, T., Breitenbach, S., Griffiths, M., **Johnson, K.R.**, Limbert, D., Longman, J., McGee, D., Pausata, F.S.R., Roberts, W., Salzmann, U., Tabor, C., Trinh, D. Drivers of Southeast Asian winter and summer monsoon variability. AGU Fall Meeting Abstracts 2021. AGU Fall Meeting.
61. **Johnson, K.R.**, Bandy, A., Coffield, S., Druffel, E., Kim, J., Norlen, C. Commitment to JEDI principles and anti-racism at a minority serving R1 university: Progress, opportunities, and challenges at UC Irvine Department of Earth System Science. AGU Fall Meeting Abstracts 2021. AGU Fall Meeting.
60. Patterson, E.* , **Johnson, K.R.**, Griffiths, M., McGee, D., Kinsley, C., Ersek, V., Yamoah, K., Bui, T., Xuan, M. A stalagmite record (4-45 kyr BP) of fall/winter monsoon variability from central Vietnam. AGU Fall Meeting Abstracts 2021. AGU Fall Meeting.
59. Wright, K.* , **Johnson, K.R.**, Serrato-Marks, G., Elsbury, D., McGee, D., Bhattacharya, T., & Beramendi-Orosco, L. (2021). Precipitation in Northeast Mexico primarily controlled by changes in Atlantic SSTs: A speleothem reconstruction of rainfall over the last millennium. *Goldschmidt2021* • Virtual • 4-9 July.
58. Tripathi, A., **Johnson, K.R.**, Aarons, S.M., Aluwihare, L., Berhe, A.A., Hurtado, S., Kim, S.L., Montanez, I.P., Ravelo, A.C., Schartup, A.T., Spriggs, R. (2020). Initiation of a diverse multi-campus network to understand climate and ecosystem change. *Geological Society of America Annual Meeting*, 359853.
57. Wright, K.* , Serrato Marks, G., **Johnson, K. R.**, McGee, D., Bhattacharya, T., Beramendi Orosco, L. E., & Lacaille Múzquiz, J. L. (2019). What are the Dominant Drivers of Precipitation Change in NE Mexico? A 75,000 Year Precipitation Record Reconstructed through Speleothem Proxies. *AGUFM*, 2019, PP51A-07.
56. Serrato Marks, G., Wright, K.* , **Johnson, K. R.**, McGee, D., & Beramendi Orosco, L. E. (2019). Stalagmite records of northeast Mexican hydroclimate in the first millennium of the Common Era. *AGUFM*, 2019, PP42B-05.
55. Henderson, G., Carolin, S., **Johnson, K.R.**, Mason, A., Breitenbach, S., Vaks, A. (2019). Testing the Milankovitch-climate connection with U-series chronology of carbonates. 2019 *Goldschmidt Conference*, August 18, 2019 - August 23, 2019.
54. **Johnson, K.R.**, Wood, C.* , Griffiths, M., Borsato, A., Frisia, S., Henderson, G., Mason, A. (2019). Multi-Proxy speleothem evidence for Southeast Asian hydroclimate variability since 38 ka. 2019 *Goldschmidt Conference*, August 18, 2019 - August 23, 2019.

53. Wright, K.* , **Johnson, K.R.**, Lum, G.***, McGee, D., Serrato Marks, G., Beramendi-Orosco, L. (2019). Changes in NE Mexico Hydroclimate in Response to Heinrich Events Inferred from a Multi-Proxy Speleothem Record. 2019 *Goldschmidt Conference*, August 18, 2019 - August 23, 2019.
52. Griffiths, M.L., **Johnson, K.R.**, Pausata, F.S.R., White, J., Henderson, G.M., Yang, H.* (2018). End of Green Sahara responsible for monsoon failure and societal shifts in Mainland Southeast Asia. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
51. Wang, J.K.* , Johnson, K.R., Borsato, A., Amaya, D.J., Griffiths, M.L., Henderson, G.M. (2018). Hydroclimatic Variability in Southeast Asia over the Past Two Millennia. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
50. Wood, C.T.* , **Johnson, K.R.**, Griffiths, M.L., Borsato, A., Frisia, S. (2018). Deglacial and Holocene Hydrologic Shifts in Southeast Asia Inferred from Speleothem Trace Elements and ¹⁴C. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
49. **Johnson, K.R.**, Frisia, S., Borsato, A. (2018). Monitoring of crystallization pathways of speleothem fabrics sensitive to hydroclimate: The case of Tham Doun Mai, Laos. EGU General Assembly Conference Abstracts 20, 9645
48. Griffiths, M.L., **Johnson, K.R.**, Pausata, F.S.R., White, J., Yang, H.* , Henderson, G.M., and Conrad, C. (2017). Did the demise of Green Sahara play a role in the mid-to-late Holocene megadrought and ‘missing millennia’ in Southeast Asian Societies?. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
47. **Johnson, K. R.**, Griffiths, M. L., Borsato, A., Frisia, S., Bhattacharya, T., Tierney, J. E., LeGrande, A., Henderson, G.M. (2017). Multi-Proxy Evidence for Decoupled Monsoon Intensity and Southeast Asian Precipitation on Orbital to Millennial Timescales”. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
46. Wang, J.* , **Johnson, K. R.**, Griffiths, M., Henderson, G. M., Borsato, A. et al. (2017). Variations in Indo-China Hydroclimate Over the Last Two Millennia [Conference]. 2017 *Goldschmidt Conference*, August 13, 2017 - August 18, 2017.
45. Wood, C.* , **Johnson, K. R.**, Griffiths, M., Henderson, G. M. et al. (2017). Speleothem Trace Element Responses over the Last Deglaciation and Holocene in Northern Laos [Conference]. 2017 *Goldschmidt Conference*, August 13, 2017 - August 18, 2017.
44. Borsato, A., Frisia, S., **Johnson, K. R.**, Treble, P. C., Henderson, G. M., Hellstrom, J. C., Howard, D., Wang, J.* et al. (2017). High Resolution Synchrotron Micro XRF Mapping of Annually Laminated Stalagmites [Conference]. *Climate Change: The Karst Record VIII*, May 21, 2017 - May 24, 2017.
43. Hu, C.-Y., Henderson, G. M., Liao, J., Ruan, J.-Y., **Johnson, K. R.**, Xie, S.-C. et al. (2017). Temperature and Rainfall Impacts on Mg/Ca in Speleothems: Evidence from an Eleven-Year Monitoring Programme at Heshang Cave, Central China [Conference]. *Climate Change: The Karst Record VIII*, May 21, 2017 - May 24, 2017.
42. **Johnson, K. R.**, Griffiths, M. L., Henderson, G. M., Borsato, A., Frisia, S., Bhattacharya, T., Tierney, J. E., LeGrande, A. et al. (2017). Multi-Proxy Evidence for Decoupled Monsoon Intensity and Southeast Asian Precipitation on Orbital and Millennial Timescales [Conference]. *Climate Change: The Karst Record VIII*, May 21, 2017 - May 24, 2017.

41. Wood, C.* , **Johnson, K. R.**, Griffiths, M., Henderson, G. M. et al. (2017). Speleothem Trace Element Responses over the Last Deglaciation and Holocene in Northern Laos [Conference]. *Climate Change: The Karst Record VIII*, May 21, 2017 - May 24, 2017.
40. Wang, J.* , **Johnson, K. R.**, Griffiths, M., Henderson, G. M., Borsato, A. et al. (2017). Variations in Indo-China Hydroclimate Over the Last Two Millennia [Conference]. *Climate Change: The Karst Record VIII*, May 21, 2017 - May 24, 2017.
39. Griffiths, M. L.** , Drysdale, R. N., Kimbrough, A. K., Hua, Q., **Johnson, K. R.**, Gagan, M. K., Cole, J., Cook, B. I., Zhao, J.-X., Hellstrom, J. C., Hantoro, W. S. (2016). Indo-Pacific hydroclimate over the past millennium and links with global climate variability [Conference]. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
38. McCabe-Glynn, S.* , Welker, J., Sellars, S., **Johnson, K. R.** et al. (2016). Utilizing precipitation chemistry records to investigate the role of dust concentrations in 'Atmospheric River' events from west US coastal states [Conference]. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
37. **Johnson, K. R.**, Griffiths, M. L.** , Yang, H.* , Henderson, G. M. et al. (2016). A Multi-Proxy Speleothem Record of Southeast Asian Monsoon Variability Since 46 kyr BP [Conference]. 2016 Goldschmidt Conference.
36. Griffiths, M. L., Drysdale, R. N., Kimbrough, A. K., Hua, Q., **Johnson, K. R.**, Gagan, M. K., Cole, J., Cook, B. I., Zhao, J.-X., Hellstrom, J. C., Hantoro, W. S. (2015). Hydrological Influence on the Dead Carbon Fraction in a Tropical Speleothem During the Younger Dryas and the Last Millennium [Conference]. In, *AGU Fall Meeting Abstracts* (Vol. 7). AGU Fall Meeting.
35. McCabe-Glynn, S.* , **Johnson, K. R.**, Yoshimura, K., Buening, N., Welker, J. et al. (2015). Assessing Precipitation Isotope Variations during Atmospheric River Events to Reveal Dominant Atmospheric/Hydrologic Processes [Conference]. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
34. **Johnson, K. R.**, Griffiths, M. L.** , Yang, H.* , Wang, J.* , Wood, C.* , Henderson, G. M. et al. (2015). Orbital and Millennial Scale Variability of the Southeast Asian Monsoon Since 45 ka [Conference]. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
33. Yang, H., **Johnson, K. R.**, Griffiths, M. L., Yoshimura, K. et al. (2015). Inter-annual Controls on Oxygen Isotopes of Precipitation in the Asian Monsoon Region [Conference]. *American Geophysical Union Fall Meeting*, San Francisco, CA.
32. Hua, Q., Griffiths, M. L.** , Drysdale, R., Bajo, P., Jenkins, D., Hellstrom, J., **Johnson, K. R.**, Gagan, M., Zhao, J. et al. (2015). Hydrological influence on the dead carbon fraction in a tropical speleothem during the Younger Dryas and the Last Millennium [Conference]. In, *The 22nd International Radiocarbon Conference*. The 22nd International Radiocarbon Conference, November 16, 2015 - November 20, 2015.

31. McCabe-Glynn, S.*, **Johnson, K. R.**, Zou, Y., Welker, J., Strong, C., Rutz, J., Yu, J.-Y., Yoshimura, K., Sellars, S., Payne, A. et al. (2014). Arctic and Tropical Influence on Extreme Precipitation Events, Atmospheric Rivers, and Associated Isotopic Values in the Western US [Conference]. In, *AGU Fall Meeting Abstracts*. AGU Fall Meeting.
30. **Johnson, K. R.**, McCabe-Glynn, S.*, Cheng, H., Edwards, R. Lawrence (2014). A Multi-Proxy Record of Ocean-Atmosphere Dynamics and Local Water Balance since 854 AD from a Southern California Speleothem [Conference]. Geological Society of America Annual Meeting.
29. **Johnson, K. R.** (2014). Engaging American Indian students in Earth system science through a culturally-based, hands-on summer learning opportunity. Geological Society of America Annual Meeting.
28. **Johnson, K. R.**, Noronha, A.*, Hu, C., Ruan, J. (2014). Assessing Influences on Speleothem ^{14}C Variability: Implications for Speleothem-Based ^{14}C Calibrations. In, *Goldschmidt Abstracts* (Vol. 2014, pp. 1161). 2014 Goldschmidt Conference.
27. Noronha, A.*, **Johnson, K. R.**, Southon, J., Hu, C., Ruan, J. (2014). Investigating The Age of Soil Carbon In Karst Terrains. In, *Goldschmidt Abstracts* (Vol. 2014, pp. 1828). 2014 Goldschmidt Conference.
26. Yang, H.*, **Johnson, K. R.***, Griffiths, M., Sekhon, N., LeGrande, A., Yoshimura, K., Ersek, L., Henderson, G. (2014). Southeast Asian Monsoon Variability during the Holocene Based on Speleothems from Laos. In, *Goldschmidt Abstracts* (Vol. 2014, pp. 2770). 2014 Goldschmidt Conference.
25. Hu et al. (2013). Altitudinal $\delta^{18}\text{O}$ Gradients from Chinese Stalagmites Provide Records of Holocene Humidity Variation. In *Mineralogical Magazine*. Goldschmidt Conference, Vol. 77, (5) (pp. 1398).
24. Baker et al. (2013). Asian Monsoon Moisture Transport 1999-2005 and its Implications for Palaeomonsoon Reconstructions. In *Mineralogical Magazine*. Goldschmidt Conference, Vol. 77, (5) (pp. 1398).
23. Johnson et al. (2013). North Pacific SST Variability and Drought in Southwestern North America Since 854 AD. In *Mineralogical Magazine*. Goldschmidt Conference, Vol. 77, (5) (pp. 1398).
22. McCabe-Glynn, S.*, **Johnson, K. R.**, Berkelhammer, M. (2012). Assessing modern climatic controls on southern Sierra Nevada precipitation and speleothem $\delta^{18}\text{O}$. American Geophysical Union Fall Meeting.
21. Yang, H.*, **Johnson, K. R.**, Griffiths, M.**, De Anda, J., Ersek, V., Henderson, G. M. (2012). Holocene Shifts in Southeast Asian Hydrology Recorded in Speleothems from Laos. American Geophysical Union Fall Meeting.

20. **Johnson, K. R.**, Polequaptewa, N., Leon, Y. (2012). The American Indian Summer Institute in Earth System Science (AISESS) at UC Irvine: A Two-Week Residential Summer Program for High School Students. American Geophysical Union Fall Meeting.
19. Noronha, A.*, **Johnson, K. R.**, Ruan, J., Hu, C. (2012). Understanding Variability in Dead Carbon Fraction in Heshang Cave, China. 21st International Radiocarbon Conference.
18. McCabe-Glynn, S.*, **Johnson, K. R.**, Strong, C., Berkelhammer, M., Sinha, A., Cheng, H., Edwards, L. (2011). A Multi-proxy Reconstruction of Hydrologic Variability over the Last Millennium from a Sierra Nevada Mountain Stalagmite. American Geophysical Union Fall Meeting.
17. **Johnson, K. R.**, Noronha, A.*, Hu, C., Ruan, J. (2011). A process-based study of speleothem ^{14}C variability: Climatic controls and prospects for speleothem-based radiocarbon calibration. American Geophysical Union Fall Meeting.
16. **Johnson, K. R.**, Magana, A.*, Hu, C. (2011). Climatic controls on speleothem radiocarbon variability: New results from Heshang Cave, China. *Climate Change: The Karst Record VI*.
15. **Johnson, K. R.**, Noronha, A.*, Hu, C. (2011). Climatic controls on speleothem radiocarbon variability: New results from Heshang Cave, China. *Climate Change: The Karst Record VI*.
14. McCabe-Glynn, S.*, **Johnson, K. R.**, Berkelhammer, M., Sinha, A., Cheng, H., Edwards, L. (2011). Pacific sea surface temperature influence on Southwestern United States climate during the past millennium: New evidence from a well-calibrated, high-resolution stalagmite $\delta^{18}\text{O}$ record from the Sierra Nevada Mountains. *Climate Change: The Karst Record VI*.
13. McCabe-Glynn, S.*, **Johnson, K. R.**, Berkelhammer, M., Sinha, A., Cheng, H., Edwards, L. (2011). Pacific Sea Surface Temperature Influence on Southwestern United States Climate During the Past Millennium: New Evidence from a Well-calibrated, High-resolution Stalagmite $\delta^{18}\text{O}$ Record from the Sierra Nevada Mountains. Pacific Climate Workshop (PacClim).
12. Ferguson, J.***, Meyer, L., **Johnson, K. R.**, Santos, G., Acaylar, K., Tripathi, A. (2010). ^{14}C and $\delta^{13}\text{C}$ in *Mytilus californianus* shells as a proxy of upwelling intensity. American Geophysical Union Fall Meeting.
11. McCabe-Glynn, S.*, **Johnson, K. R.**, Berkelhammer, M., Strong, C., Sinha, A., Cheng, H., Edwards, L. (2010). Pacific Sea Surface Temperature Influence on Southwestern United States Climate During the Past Millennium: New Evidence from a Well-calibrated, High-resolution Stalagmite $\delta^{18}\text{O}$ Record from the Sierra Nevada Mountains. American Geophysical Union Fall Meeting.
10. **Johnson, K. R.**, Hu, C., Henderson, G., McCabe-Glynn, S.* (2010). Calibrating seasonal resolution monsoon proxies in stalagmites from Heshang Cave, China. Global Monsoon symposium.

9. Ferguson, J.***, Meyer, L., **Johnson, K. R.**, dos Santos, G., Acaylar, K., Tripathi, A. (2010). Developing radiocarbon within California mollusk shells as a proxy of upwelling intensity. In *Geochimica et Cosmochimica Acta*. Goldschmidt 2010: Earth, Energy, and the Environment, Vol. 74. 12
8. **Johnson, K. R.**, Magana, A.*, Hu, C. (2010). Testing climatic controls on speleothem dead carbon fraction in a Holocene stalagmite: Implications for speleothem-based radiocarbon calibration. In *Geochimica et Cosmochimica Acta*. Goldschmidt 2010: Earth, Energy, and the Environment, Vol. 74. 12
7. McCabe-Glynn, S.*, **Johnson, K. R.**, Berkelhammer, M., Sinha, A. (2010). Assessing the paleoclimate potential of speleothems from the Sierra Nevada mountains: A preliminary study. Geological Society of America Cordilleran Section Meeting.
6. Ferguson, J.***, **Johnson, K. R.**, Roy, K., Kennett, D., Erlandson, J. (2010). Seasonal resolution sea surface temperatures from *littia gigantea* shell geochemistry. Geological Society of America Cordilleran Section Meeting.
5. **Johnson, K. R.**, Ferguson, J.*, Meyer, L., Acaylar, K., Santos, G., Tripathi, A. (2010). Testing modern controls on seasonal ¹⁴C variations in seawater DIC and *mytilus californianus* shells: The potential for a new upwelling proxy. Geological Society of America Cordilleran Section Meeting.
4. **Johnson, K. R.**, Hu, C., Henderson, G. (2009). Testing environmental controls on speleothem geochemistry: the potential for seasonal resolution paleoclimate records from Heshang Cave, China. PAGES 3rd Open Science Meeting.
3. **Johnson, K. R.**, Hu, C., Henderson, G. (2008). Testing speleothem proxies of the Asian Monsoon: Modern calibration results from Heshang Cave, China. Geological Society of America Annual Meeting.
2. **Johnson, K. R.**, Hu, C., Stewart, J., Henderson, G. (2008). Goldschmidt Conference.
1. **Johnson, K. R.**, Hu, C., Stewart, J., Henderson, G. (2008). Climate Change: The Karst Record V.

Invited presentations

Johnson, K.R., Allison, S.D., Crook, E.D., McGuire, C., Egoh, B. and Fortun, K., 2023 (invited). The UC Irvine CLIMATE Justice Initiative: A new model for broadening participation in the geosciences through centering environmental justice, community-engagement, and transdisciplinary climate change research and education. AGU23.

Johnson, K.R. "Speleothem constraints on tropical hydroclimate dynamics", Whole Earth Seminar, Dept. of Earth and Environmental Sciences, University of Michigan (Oct. 31, 2023)

Johnson, K.R. "Speleothem constraints on tropical hydroclimate dynamics", Smith Lecture, Dept. of Earth and Planetary Sciences, UC Santa Cruz (Sept. 15, 2023)

- Johnson, K.R.**, “Toward Climate and Environmental Justice in Indigenous Communities: The Role of STEM Research, Community Engagement, and Education”, University of Oklahoma, Institute for Resilient Environmental and Energy Systems symposium (March 31, 2023)
- Johnson, K.R.** “Speleothem constraints on tropical hydroclimate dynamics”, OU College of Atmospheric and Geographic Science Colloquium, University of Oklahoma (March 30, 2023).
- Johnson, K.R.**, “Monsoons and climate change: A paleoclimate perspective from Southeast Asia”, Dept. of Earth, Environment, and Planetary Sciences, Washington University in St. Louis (Nov. 10, 2022).
- Johnson, K.R.**, “Speleothem constraints on tropical hydroclimate dynamics”, Geosciences Colloquium, Penn State University (September 6, 2022).
- Johnson, K.R.**, “Monsoons and climate change: A paleoclimate perspective from Southeast Asia”. Faculty of Geology seminar, Vietnam National University (August 1, 2022).
- Johnson, K.R.**, “Monsoons and climate change: A paleoclimate perspective from Southeast Asia”. Geoscience/Marine Chemistry and Geochemistry seminar series, Scripps Institute of Oceanography, UCSD (May 9, 2022).
- Johnson, K.R.**, “Monsoons and climate change: A paleoclimate perspective from Southeast Asia”, Dept. of Earth, Atmospheric, and Planetary Sciences seminar, Purdue University (April 26, 2022)
- Johnson, K.R.**, “Toward Climate and Environmental Justice in Indigenous Communities: The Role of STEM Research, Community Engagement, and Education.” Changemakers Speaker Series, UCI School of Social Sciences (February 16, 2022).
- Johnson, K.R.**, “Speleothem Constraints on Past Hydroclimate: The Value of Multiple Proxies”. Marine Chemistry and Geochemistry seminar, Woods Hole Oceanographic Institution (February 8, 2022).
- Johnson, K.R.**, “Monsoons, tropical rainfall, and climate change: A paleoclimate perspective from Southeast Asia”. Monsoon Seminar Series (<https://www.monsoongeoseminars.com/>; November 24, 2021)
- Johnson, K.R.**, “Monsoons and climate change: A paleoclimate perspective from Southeast Asia”. Randolph W. Chapman Colloquium, University of New Hampshire (April 8, 2021).
- Johnson, K.R.**, “Monsoons, tropical rainfall, and climate change: A paleoclimate perspective from Southeast Asia”. Dept. of Geology and Environmental Science seminar, James Madison University (February 18, 2021).

Johnson, K.R., “Monsoons, tropical rainfall, and climate change: A paleoclimate perspective from Southeast Asia”. The Robert H. Cuyler Endowed Lecturer, DeFord Lecture Series, Jackson School of Geosciences, University of Texas at Austin (February 4, 2021).

Johnson, K.R., “Monsoons, tropical rainfall, and climate change: A paleoclimate perspective from Southeast Asia”. PAOC Colloquium, MIT Dept. of Earth, Atmospheric, and Planetary Sciences (December 7, 2020).

Johnson, K.R., “Monsoons, tropical rainfall, and climate change: A paleoclimate perspective from Southeast Asia”. Instituto de Geologia, Universidad Nacional Autonoma de Mexico (February 6, 2020).

Johnson, K.R., “Monsoons, tropical rainfall, and climate change: A paleoclimate perspective from Southeast Asia”. Department of Earth and Environmental Sciences, University of Minnesota (January 30, 2020).

Johnson, K.R., “UCI Natural Reserves and Building Relationships with Native Nations as Kuuyam (guests) on Indigenous Homelands”, UCI Center for Environmental Biology Workshop on “Decolonizing Ecology and Indigenous Land Co-Management” (May 17, 2019).

Johnson, K.R., “Speleothem Records of SE Asia Paleoclimate”, Early Modern Period Transitions in Southeast Asia: Environmental Dynamics, Social Change, and Globalization workshop, University of California, Los Angeles (April 25-27, 2019).

Johnson, K.R., “What do East Asian Speleothem Records Tell Us About Past Climate Changes?”. Berkeley Atmospheric Sciences Center Symposium, University of California, Berkeley (April 4-5, 2019).

Johnson, K.R., “Southeast Asian Rainfall and Monsoon History: A New View from Multi-Proxy Speleothem Records”. Caltech Geoclub seminar, Division of Geological and Planetary Sciences, Caltech (February 21, 2019).

Johnson, K.R., “Hydroclimatic variability in Mainland Southeast Asia since the Last Glacial Maximum”. UCR Hewett Club Seminar, Dept. of Earth Sciences, University of California, Riverside (November 20, 2018).

Johnson, K.R., “Hydroclimatic variability in Mainland Southeast Asia since the Last Glacial Maximum”. Department of Earth, Planetary, and Space Sciences colloquium, University of California, Los Angeles (November 6, 2018).

Johnson, K.R., “Hydroclimatic variability in Mainland Southeast Asia since the Last Glacial Maximum”. Biology & Paleo Environment Seminar, Lamont-Doherty Earth Observatory, Columbia University (September 10, 2018).

Johnson, K.R., “Lessons from the past for future water resources”. Water in the Native World symposium., Salish Kootenai College, Pablo, MT. (August 1-5, 2018).

- Johnson, K.R.**, “Decoupling regional rainfall from large-scale monsoon intensity over the last 38 kyr utilizing multiple proxies in Southeast Asian speleothems”. Water and Climate Change: Connecting the Paleoclimate Record to Future Changes, Lorenz Center, Massachusetts Institute for Technology (June 3-6, 2018)
- Johnson, K.R.**, “Reconstructing seasonal to decadal scale climate variability from speleothems: Potential, strategies, and challenges” (keynote). High-resolution Paleoclimate Proxies conference, University of Wisconsin SIMS facility (June 19, 2017)
- Johnson, K.R.**, “Reconstructing past climate change using speleothems from SE Asia (and beyond...)”, Dept. of Environmental Science, Mahidol University, Salaya, Thailand (February 3, 2017).
- Johnson, K.R.**, “Reconstructing past climate change using speleothems from SE Asia (and beyond...)”, Dept. of Environmental Science, William Paterson University, Wayne, NJ. (September 14, 2016).
- Johnson, K.R.**, "A multi-proxy speleothem record of Southeast Asian monsoon variability since 45 ka", Berkeley Atmospheric Science Center, University of California, Berkeley. (March 16, 2016).
- Johnson, K.R.**, A multi-proxy speleothem record of Southeast Asian monsoon variability since 45 ka", Dept. of Geosciences, University of Arizona, Tucson, AZ. (December 3, 2015).
- Johnson, K.R.**, "Orbital to Millennial Scale Variability in the Southeast Asian Monsoon Since the Last Glacial Period", Monsoons: Past, Present, and Future, Ronald and Maxine Linde Center for Global Environmental Studies, California Institute of Technology. (May 2015).
- Johnson, K.R.**, "A Multi-Proxy Record of Ocean-Atmosphere Dynamics and Local Water Balance since 854 AD from a Southern California Speleothem", Keck Science Department Seminar, W.M. Keck Science Center, Claremont McKenna College, Pitzer College, Scripps College. (November 6, 2014).
- Johnson, K.R.**, McCabe-Glynn, S.*, Cheng, H., Edwards, R.L. "A Multi-Proxy Record of Ocean-Atmosphere Dynamics and Local Water Balance since 854 AD from a Southern California Speleothem", GSA Annual Meeting, Geological Society of America. (October 2014).
- Johnson, K.R.**, Noronha, A.L., Hu, C.Y., Ruan, J.Y. “Assessing influences on speleothem ¹⁴C variability: Implications for speleothem-based ¹⁴C calibrations,” Goldschmidt Conference. (June, 2014).
- Johnson, K.R.**, “A speleothem-based perspective of Western North America hydroclimate during the last millennium,” University of Southern California. (April 18, 2014).
- Johnson, K. R.**, "The Weather Underground: New speleothem records of Late Holocene climate," Woods Hole Oceanographic Institute. (May 18, 2012).

- Johnson, K. R.**, "The Weather Underground: New speleothem records of Late Holocene climate," California Institute of Technology. Environmental Science and Engineering Seminar. (February 22, 2012).
- Johnson, K. R.**, "The Weather Underground: New speleothem records of Late Holocene climate," UCI School of Physical Sciences Discover the Physical Sciences Breakfast Lecture. (January 24, 2012).
- Johnson, K. R.**, "Reconstructing Asian Monsoon History from Chinese Speleothems," San Diego State University, Dept. of Geological Sciences. (February 18, 2009).
- Johnson, K. R.**, "Reconstructing Asian Monsoon History from Chinese Speleothems," Scripps Institute of Oceanography. (February 2, 2009).
- Johnson, K. R.**, Hans Seuss Workshop, "Solar influences on Asian Monsoon variability: Evidence from Chinese Caves," UC San Diego, Panel: Variations in solar output and climate change. (December 11, 2008).
- Johnson, K. R.**, Hu, C., Henderson, G. M., 2008 Joint Meeting of The Geological Society of America, "Testing Speleothem Proxies of the Asian Monsoon: Modern Calibration Results from Heshang Cave, China." (October 2008).
- Johnson, K. R.**, "Reconstructing Asian Monsoon History from Chinese Speleothems," University of California, Riverside, Dept. of Earth Sciences. (May 2008).
- Johnson, K. R.**, "Reconstructing Asian Monsoon History from Chinese Speleothems," Pomona College, Dept. of Geology, Claremont, CA. (October 2007).
- Johnson, K. R.**, University of Utrecht, Dept. of Geosciences, The Netherlands. (February 2007).
- Johnson, K. R.**, University of East Anglia, School of Environmental Sciences, UK. (November 2006).

Research grants

- Allison, Steven (Principal Investigator), Johnson, Kathleen (co-I), et al. "Community-engaged research to manage fire and water in California landscapes", UC California Climate Action grant, \$5,538,311 (2023-2025).
- Johnson, Kathleen R. (Principal Investigator), Allison, Steve (co-PI), Egoh, Benis (co-PI), Fortun, Kim (co-PI), Crook, Elizabeth (co-PI). "Implementation Grant: A Cultural, Learning, and Institutional Model to Accelerate Transformations for Environmental Justice (CLIMATE Justice)", NSF- National Science Foundation, \$7,500,000 (January 1, 2023 – December 31, 2027).
- Johnson, Kathleen R. (Principal Investigator), "Collaborative Research: P2C2--Speleothem Constraints on Seasonal Hydroclimate Variability in Mainland Southeast Asia since the Late Pleistocene, NSF – National Science Foundation, \$607,706 (July 1, 2021 – June 30, 2024).

- Johnson, Kathleen R. (co-PI), Tierney, Jessica (PI), Ibarra, Dan (co-PI), Bhattacharya, Tripti (co-PI), Anchukaitis, Kevin (co-PI), "PaleoCAMP (Paleoclimate training in Climate Archives, Models, and Proxies): A multidisciplinary summer school for graduate students in paleoclimatology", Heising-Simons Foundation, \$425,166 (\$33,842 to UCI; January 1, 2021 – December 31, 2024).
- Johnson, Kathleen R (Principal Investigator), "P2C2 Collaborative Research: Reconstructing Northeast Mexico Hydroclimate since the Last Interglacial Period," NSF- National Science Foundation, \$390,299 (Feb. 1, 2019 – Jan. 31, 2023).
- Johnson, Kathleen R (Principal Investigator), "P2C2: Collaborative Research: Calibrating South East Asian Proxies: Speleothems and Tree-Rings," NSF- National Science Foundation, \$329,476 (Sept. 1, 2017 – Aug. 30, 2020).
- Johnson, Kathleen R (Co-PI), Beramendi-Orosco, Laura (Co-PI), "Reconstructing climate change for the recent past using Mexican tree rings and cave deposits," UC Mexus, \$24,968.00. (July 1, 2016 - December 31, 2017).
- Johnson, Kathleen R (Principal Investigator), Griffiths, Michael (Co-PI), "Collaborative Research: Reconstructing Deglacial and Holocene climate variability in Southeast Asia using speleothems and isotope-enabled model simulations," NSF - National Science Foundation, \$444,917.00. (July 1, 2014 - June 30, 2017).
- Johnson, Kathleen R. (Principal Investigator), "OEDG Track 2: A residential summer institute in Earth System Science for American Indian high school students," NSF - National Science Foundation, \$1,272,589. (September 1, 2011- August 31, 2017).
- Johnson, Kathleen R (Principal Investigator), Beramendi-Orosco (Co-PI), "Monitoring fossil fuel emissions utilizing atmospheric $^{14}\text{CO}_2$ in Northeastern Mexico," Academic Senate Council on Research, Computing and Libraries (UCI CORCL), \$5,000. (December 16, 2013).
- Johnson, Kathleen R (Principal Investigator), "Preliminary studies of monitoring atmospheric $^{14}\text{CO}_2$ in Northeastern Mexico," UC Mexus Small Grant, \$1,500 (November 1, 2013 – October 31, 2014).
- Johnson, Kathleen R (Principal Investigator), "P2C2: Testing Speleothem-Based Radiocarbon Calibrations Through A Process-Based Cave Study and a New 35 Kyr Calibration Curve," NSF - National Science Foundation, \$461,495.00. (July 1, 2009 - June 30, 2012).
- Johnson, Kathleen R (Principal Investigator), "Paleoclimate reconstruction using speleothems from Laos," Academic Senate Council on Research, Computing and Libraries (UCI CORCL), \$5,000.00. (January 2011).
- Johnson, Kathleen R (Principal Investigator), Saltzman, Eric Steven (Co-Principal Investigator), Trumbore, Susan E (Co-Principal Investigator), "MRI: Acquisition of a High-Resolution Double-Focusing Magnetic Sector-Field Mass Spectrometer (HR-ICP-MS) for Paleoclimate and Biogeochemical Research," NSF - National Science Foundation, \$360,703.00. (August 15, 2008 - August 14, 2010).
- Johnson, Kathleen R (Principal Investigator), "AY2009-2010 Special Research Grant," Academic Senate Council on Research, Computing and Libraries (UCI CORCL), \$3,695.00. (March 2010).

Johnson, Kathleen R (Principal Investigator), Druffel, Ellen R.M. (Co-Principal Investigator), "Multi Investigator Faculty Research Grant," Academic Senate Council on Research, Computing and Libraries (UCI CORCL), \$5,000.00. (September 2009).

Johnson, Kathleen R (Principal Investigator), "Natural controls on precipitation variability in California: Paleoclimatic evidence in speleothems from Sequoia National Park," Newkirk Center for Science and Society, \$10,000.00. (July 2008).

Professional service

Ad hoc reviewer for: *Austrian Science Fund; Climate Dynamics; Climate of the Past; Earth and Planetary Science Letters; G-cubed: Geochemistry, Geophysics, Geosystems; Geochimica et Cosmochimica Acta; Geology; Geophysical Research Letters; Global Change Biology; Paleoceanography; The Holocene; Hydrology in Earth System Science International Journal of Speleology; Journal of Asian Earth Sciences; Journal of Hydrology; Journal of Geochemical Exploration; Journal of Geophysical Research; Journal of Quaternary Science; National Geographic; National Science Foundation; Nature Communications; Nature Geoscience; Nature; Palaeogeography, Palaeoclimatology, Palaeoecology; Paleoceanography; Proceedings of the National Academy of Sciences; Quaternary Research; Quaternary Science Reviews; Scientific Reports; Science, Science Advances*

2023-present, President of AGU Paleoceanography & Paleoclimatology section.

2023-present, Inclusive Graduate Education Network (IGEN) National Advisory Board member

2021- present, Leadership team member & Instructor for paleoCAMP, a two-week graduate summer school on paleoclimate.

2021 – present, Facilitator of “Equity in Graduate Admissions” workshops, California Consortium for Inclusive Doctoral Education (C-CIDE) and Inclusive Graduate Education Network (IGEN)

2021 – present, Program for Early Modern Southeast Asia (PEMSEA) advisory committee member.

2018 – present, Associate Editor, *Quaternary Research*, Cambridge University Press

2018 – present, Cave Monitoring Database management committee (<https://cave-monitoring.org/>)

2017-present, *Environment and Natural Resources* Journal, Editorial Review Board Member

2023, Lecturer and DEI Workshop at Summer School for Speleothem Science, Sao Paulo, Brazil.

2023, AGU Fall meeting, session convener and town hall convener

2021 – 2023, NOAA Climate & Global Change Postdoctoral Fellowship steering committee member

2021 – 2022, President-Elect of AGU Paleoceanography and Paleoclimatology section.

2020 – 2021, Organizing committee, participant, and facilitator for Call to Action: Anti-Racism in Geosciences workshop series (CHANGE workshops; 2020-present)

2021 – Breakout session moderator, NASEM workshop on “Identifying New Community-Driven Science Themes for NSF’s Support of Paleoclimate Research”

2021- 2022, Chair, AGU Emiliani Lecture Selection Committee

2022, AGU Fall Meeting, session convener and town hall convener

2022, National Science Foundation, Paleo Perspectives on Climate Change, Panelist.

2020 –2021, Guest Editor, *Elements Magazine* (Speleothems issue)

2021, AGU Fall Meeting, Town Hall convener

2020, Member, AGU Elderfield Award selection committee

2020, Geological Society of America Cordilleran Section meeting, Session convener

2019, University of Minnesota Earth and Environmental Sciences Graduate Program Diversity Advisory Roundtable
2019, Invited Lecturer, Summer School for Speleothem Science, Cluj, Romania (Aug. 11-16, 2019)
2019 – Southeast Asian Paleoclimate Workshop: Isotopes in the Environment, International Center for Tropical Highlands Ecosystems Research, Bidoup-Nui Ba National Park, Vietnam (January 5-6, 2019), Co-convenor
2016-2017 Climate Change: The Karst Record VIII (KR8) conference (May 21-24, 2017), University of Texas at Austin, Co-convenor
2016 Goldschmidt Conference, Session convenor and co-chair
2015 AGU Fall Meeting 2015, Session convenor and co-chair.
2015 National Science Foundation, Paleo Perspectives on Climate Change, Panelist.
2013 Goldschmidt Conference, Member of Climate Change "Theme Team
2013 Goldschmidt Conference, Session Convenor and co-chair
2013 American Indian Science and Engineering Society National Conference, Student Research Judge
2012 American Indian Science and Engineering Society National Conference, Student Research Judge
2012 AGU Fall Meeting, Session Convenor and co-chair
2010 Geological Society of America Cordilleran Section Meeting, Session Convenor and co-chair
2009 Goldschmidt Conference Student Travel Grant Committee, Member
2008 Goldschmidt Conference, Session convenor and co-chair.
2008 Goldschmidt Conference Student Travel Grant Committee, Member
2008 "Climate Change: The Karst Record V" conference, Scientific Committee member and session chair

University and Department Service

2022-present, Co-Chair, UCI Land Acknowledgement Task Force
2022-present, School of Physical Sciences Climate Council member
2022 – present, Environmental Racism and Health Equity Graduate Cluster, Executive Committee member
2021 – present, Equity Advisor for the School of Physical Sciences
2021 – present, Co-Leader for UCI End Racism Initiative Working Group 4: Evaluating Faculty Contributions to DEI during Academic Review
2022, 2023 – Keynote speaker at Celebrate UCI Native American Luncheon
2021 – 2022, Co-Leader for UCI ESS Unlearning Racism in Geoscience Pod
2020 – 2021, Lead proposal writer and primary faculty contact for AGU Bridge Program (UCI ESS is an inaugural partner)
2022, Environmental Racism and Health Equity Graduate Cluster, Admissions Committee
2022, UCI School of Physical Sciences, Compelling Conversations – [Diversity, Equity, and Inclusion in the Physical Sciences](#).
2019 – 2021, Vice-Chair for Diversity, Equity and Inclusion and Chair of ESS Inclusive Excellence Committee, Dept. of Earth System Science (April 1, 2019 – present).
2019 – 2021, Graduate Admissions committee (*ex officio*)
2020 – UCI School of Physical Sciences, Compelling Conversations - [What is known and unknown about climate change](#).
2017 –2020, Member/DEI representative, Faculty Search Committee (3 searches; tasked with evaluating DEI statements and ensuring equity during hiring process).

2018-2019, Faculty Advocate, Science in Action graduate training project, School of Physical Sciences.
2018-2019, Member, Physical Sciences Dean Search Committee
2008 – 2019, Faculty grader, UCI Test of English Proficiency.
2015-2018, Member, UCI Subcommittee on International Education.
2013-2014, Alternative Representative to the University-wide Assembly.
2012-2013, Chair, UCI Board on Undergraduate Scholarships, Honors and Financial Aid.
2012-2013, Ex Officio Member, UCI Council on Student Experience.
2010-2013, Member, UCI Board on Undergraduate Scholarships, Honors and Financial Aid.
2012, UCI School of Physical Sciences Discover the Physical Sciences Breakfast Lecture.

Professional development

2023- present, UCI Faculty Mentoring Academy
2021-2023, AGU Landing Academy Fellow
2022, ADVANCEGeo workshop on “Improving workplace climate: empowering individuals to become active bystanders”
2022, UC Women’s Initiative for Professional Development (nominated by UCI Provost’s office; 30 hours of session time)
2022, UC Managing Implicit Bias series
2021, Unlearning Racism in Geosciences (URGE), co-leader of UCI ESS pod
2021, UCI Elevate Women program for Women of Color Associate Professors (5 x 2 hour sessions in March – May 2021)
2021, Inclusive facilitation training for UCI End Racism working group leaders (6 x 2 hour sessions in Jan. – Apr. 2021)
2020-2021, UCI Inclusive Excellence Certificate Course (3 course series)
2020-2021, Speak Up: Responding to Everyday Incidents of Bias in STEM workshop (Dec. 2020 and Mar. 2021)
2020-2021, IGEN/C-CIDE Equity in Graduate Admissions Workshops (Participant in Dec. 2020 and Jan. 2021; Facilitation training in April 2021)
2018, Faculty Success Program, National Center for Faculty Development and Diversity. (May 2018 – August 2018)
2018, American Indian Science and Engineering Society Leadership Summit (March 2018)
2010, Workshop for Early Career Geoscience Faculty, National Association of Geoscience Teachers/ National Science Foundation, Williamsburg, VA.

Outreach, mentoring, and DEI work

2023-present, Director and PI of UCI CLIMATE Justice Initiative
2023-present, Mentor for Luce Rematriation: Indigenous Womxn in STEM Leadership Program
2021 – present, Faculty advisor for the UCI American Indian Student Association
2021 – present, co-leader of UCI Native American Faculty and Staff Association
2020 - 2022, Instructor for ESS280A Diversity in STEM graduate seminar annually (Fall 2020 quarter, to be continued annually each fall).
2016 – present, Faculty Mentor for AISES Lighting the Pathway to Faculty Careers for Natives in STEM (five graduate students/post-docs)
2008 – present, Faculty advisor and mentor to 8 UCI ESS PhD students (5 female, 3 male; 4 BIPOC) and 19 undergraduate students (15 female, 4 male; 12 BIPOC)
2022, UCI Land Acknowledgement Task Force, co-chair

- 2017 – 2020, “Skype a Scientist” program (five virtual classroom visits)
- 2021-2022, UCI Inclusive Excellence Certificate Program, Community Class presentation: “Land Acknowledgements and the UCI Native Community”
- 2021, BEYA 2021 Stem conference - K-12 panel "Becoming a scientist or engineer"
- 2021, UCI Ridge to Reef NRT Faculty Mentor (2 female graduate students)
- 2021, Healthy Mentor/Mentee Relationships & IDPs as a Tool for Achieving This workshop at AISES Lighting the Pathway meeting
- 2020, Student and Early Career Virtual Mentoring Event for Paleoclimatology & Paleoceanography Section
- 2019, Keynote talk on “Research and Opportunities in Earth System Science at UCI” at the NASA CSU-LA DIRECT-STEM Fall 2019 kick-off event.
- 2018, Organized “Cultivating Consciousness and Environmental Justice in Acjachemen and Tongva Homelands” workshop and Indigenous Community Dinner, UC Irvine (May 4th, 2018).
- 2018, Hosted a half-day visit for middle and high school students from Semillas Community School (LA) and Sherman Indian School (Riverside) (May 4th, 2018).
- 2012-2017, PI and Director of American Indian Summer Institute in Earth System Science (AISIESS), a two-week NSF funded residential summer program for Indigenous high school students.

Postdoctoral Research Supervision

- January 2024 – present, Nadia Sae-Lim, Advisor
UC President’s Postdoctoral Fellow
- October 2021- present, Annabel Wolf, Advisor
- January 2022- March 2022, Kevin Wright, Advisor
- August 2016 – July 2017, Sarah Aarons, Co-Advisor (with Eric Saltzman)
UCI Chancellor’s ADVANCE post-doctoral fellow
- August 2010 - August 2012, Michael Griffiths, Advisor
NOAA Climate and Global Change Post-Doctoral Fellow
- November 1, 2008 - December 31, 2010, Julie Ferguson, Advisor

Graduate Research Supervision

- 2023-present, Miranda Botello
- 2023-present, Vanessa Vasquez
- 2020-present, Bryant Pahl, Advisor
- 2018-2020, Gabriela Serrato Marks (MIT), Committee Member
- 2018-present, Elizabeth Patterson, Advisor
- 2016-2021, Kevin Wright, Advisor
- 2014-2020, Jessica Wang, Advisor
- 2014-2019, Christopher Wood, Advisor
- 2018, Trenton Salk (UCI Chemistry), Advancement Committee
- 2018, Jennifer Wurtzel (ANU), PhD Dissertation Examiner
- 2017, Monika Markowska (UNSW), PhD Dissertation Examiner
- 2013-2016, Aimee Gibbons, Committee Member
- 2010-2016, Hongying Yang, Advisor
- 2008-2014, Alexandra Magana, Advisor
- 2008-2014, Staryl McCabe-Glynn, Advisor

Undergraduate Research Supervision

February 2024 – present, Elizabeth Vaught
September 2023 – present, Caitlyn Train
September 2023 – present, Tanner Bialosuknia
June 2022 – June 2023, Kumalie Wijesekare (*Summer field intern*)
June 2022 – June 2023, Cynthia Abuede (*Summer field intern*)
March 2021 – June 2023, Rhys Jasper-Leon (*ESS Honors program*)
January 2021 –September 2021, Reem Khan (*CHP Honors program*)
June 2020 – June 2021, Ryan Owings
January 2020 – June 2022, Cesiah Coreas (*CAMP program*)
June –August 2019, Aliza White (*visiting student from UCSD*)
January 2018 – June 2019, Gianna Lum, Advisor (*ESS Honors program*)
January 2018 – March 2019, Lindsey Lewis, Advisor (*ESS Honors program*)
September 2015 – June 2017, Saniya Syed, Advisor (*ESS Honors program*)
September 2015 - June 2016, Madeleine Garibaldi, Advisor (*ESS Honors program*)
April 2014 - June 2015, Danielle Sison, Advisor
April 2014 – June 2015 Jane Liu, Advisor
January 2013 – June 2014, Melissa Lewis, Advisor
January 2012 – June 2014, Natasha Sekhon, Advisor (*ESS Honors program*)
June 2012 - August 2012, Julianna McDonnell, Advisor
Participant in NSF-funded Research Experiences for Undergraduates program.
January 2012 - June 2012, Jonathan De Anda, Advisor
January 2011 - June 2012, Lauren Weisel, Advisor (*Campuswide Honors Program*)
June 2011 - August 2011, Jonathan Nye, Advisor
Participant in NSF-funded Research Experiences for Undergraduates program. June
2009 - August 2009, Laura Meyer, Advisor
Participant in NSF-funded Research Experiences for Undergraduates program.
February 2008 - June 2009, Karla Acaylar, Advisor (*ESS Honors program*)
2007 - June 2009, Maham Ahmed, Advisor (*ESS Honors program*)

Teaching

ESS 7 – Physical Geology
ESS 101/201 – Paleoclimatology
ESS 140 – Advanced Geology
ESS 152/252 – Environmental Isotope Geochemistry
ESS 256 – Paleoclimatology and Paleoceanography
ESS 280B- Diversity in STEM
ESS 280B – Climate Justice Practicum

Media Coverage

2023

[“UC Irvine led study links ice-sheet retreat with autumnal monsoons in central Vietnam”](#), UCI News.

[“Guest Lecturer Discusses Climate Change and Environmental Justice”](#), University of Oklahoma News.

[“How Cool are Caves”](#), Getting Curious with Jonathan Van Ness podcast

[“UC Irvine researchers embark on \\$7.5 million environmental justice initiative”](#), UCI News.

2022

[“Earth Guardians: UCI researchers seek solutions to the many effects of climate change”](#), UCI Magazine.

[“Compelling Conversations: Diversity, Equity and Inclusion in the Physical Sciences”](#), UCI School of Physical Sciences

2021

[“Extraordinary is no longer extraordinary’: US scientists on a year of climate disasters”](#), The Guardian.

[“Potentially the worst drought in 1,200 years’: scientists on the scorching US heatwave”](#), The Guardian

[“Stalagmite Chronicles Climate Whiplash in California’s Past”](#), Inside Science

[“Scientists reveal the wild history of Earth’s CO₂ since the dinosaurs died”](#), Mashable.com

[“Lifting up a generation of Native Americans”](#), UCI School of Physical Sciences communications

[“The West’s megadrought”](#), *The Week*

2020

[“Ancient megadrought may explain civilization’s ‘missing millennia’ in Southeast Asia”](#), *Science Magazine*

[“What is known and unknown about climate change”](#), UCI School of Physical Sciences – Compelling Conversations

[“Research links Southeast Asia megadrought to drying in Africa”](#), Phys.org

[“End of ‘Green Sahara’ May Have Spurred a Megadrought in Southeast Asia”](#), *Scientific American* 60-second podcast

[“Southeast Asian megadrought dating back 5,000 years discovered in Laos cave”](#), Penn Today

[“Could the Sahara Ever Be Green Again”](#), Live Science

[“UCI and international institutions link Southeast Asia megadrought to drying in Africa”](#), UCI Press Release

2017

[“Down to Earth With: Cave scientist and paleoclimatologist Kathleen Johnson”](#), *Earth Magazine*