

Nicholas P. McKay

Northern Arizona University
NAU BOX 4099
Flagstaff, AZ 86011

Phone: (928) 523-1918
Email: Nicholas.McKay@nau.edu
Homepage: nau.edu/mckay

Research Interests & Expertise

Dr. McKay researches climate dynamics on a range of spatial and temporal scales, ranging from regional to global, and decades to millennia. He field and lab work to develop new records of past climate, develops cyberinfrastructure to support paleoclimate research and uses artificial intelligence and machine learning techniques to integrate paleoclimate observations and numerical models. These research areas help us better understand how and why climate changed in the past, and how it will change in the future.

Appointments

2012-present	Northern Arizona University School of Earth and Sustainability Affiliate in the School of Informatics, Computing, and Cyber Systems <i>Professor</i> - (2025 to current) <i>Associate Professor</i> - (2019 to 2025)
2021	GNS Science and Victoria University of Wellington, New Zealand Fulbright New Zealand Scholar
2012-present	Northern Arizona University School of Earth and Sustainability <i>Assistant Professor</i> - (2014 to 2019) <i>Assistant Research Professor</i> - (2013 to 2014) <i>Postdoctoral Scholar</i> - (2012 to 2013)

Education

2012	Doctor of Philosophy , University of Arizona <i>Major:</i> Geosciences <i>Minor:</i> Global Change <i>Advisor:</i> Dr. Jonathan T. Overpeck
2007	Master of Science , Northern Arizona University, <i>with distinction</i> <i>Major:</i> Geology <i>Advisor:</i> Dr. Darrell S. Kaufman
2005	Bachelors of Science , Northern Arizona University, <i>magna cum laude</i> <i>Majors:</i> Geology & Environmental Science <i>Minor:</i> Mathematics

Peer-reviewed Publications

*Denotes NAU student as lead author

In Review

95. Mark, S. Z., B. V. Gaglioti, E. K. Thomas, D. H. Mann, G. A. Otiniano, C. L. Hancock, and **McKay, N. P.** (2026), Deglacial constraints on the permafrost-carbon feedback, *AGU Advances*, in review
94. *Telles, F. T., S. Semken, **McKay, N. P.**, and M. Nelson (2026a), Evaluating a place-based professional development workshop in geoscience for K-12 educators serving Indigenous communities in northern Arizona, *Journal of Geoscience Education*, in review
93. *Lathrop, E., S. Opfergelt, C. See, J. Mommer, N. Sandron, M. Thomas, C. Ebert, A. Kelley, **McKay, N. P.**, and E. A. Schuur (2026), Permafrost thaw-driven loss of mineral-associated organic carbon, *Nature Climate Change*, in review

In Revision

92. *Bock, B., **McKay, N. P.**, et al. (2026), Mapping the geographic, taxonomic, and socioeconomic biases of global fungal endophyte research, *New Phytologist*, in revision

2026

91. *Marshall, L. P., D. S. Kaufman, **McKay, N. P.**, E. K. Thomas, H. Hafidason, M. Melles, and J. I. Svendsen (2026), Millennial-scale carbon-source changes revealed by sedimentary radiocarbon in Arctic lakes, *Quaternary Science Reviews*, 390, 110,121
90. *Telles, F. T., **McKay, N. P.**, K. E. Davis, and S. Arcusa (2026b), Spanish colonization triggered 17th-century landscape dust regime shift in the Southwestern United States, *Anthropocene*, 54, 100,553
89. Larocca, L. J., D. S. Kaufman, M. P. Erb, T. M. Schultz, **McKay, N. P.**, J. P. Brooks, and J. L. Carrivick (2026), Glacier equilibrium-line altitude change across Alaska and adjacent Canada indicates a cold, dry Little Ice Age and weaker Aleutian Low, *Geophysical Research Letters*, 53(4), e2025GL119,840

2025

88. Kaufman, D. S., J. Bright, C. Ebert, K. Lindberg, L. Marshall, **N. P. McKay**, E. Schuur, and E. Thomas (2025), Radiocarbon dating of lake sediment using low-temperature combustion, *Radiocarbon*, pp. 1–22
87. Khider, D., J. Emile-Geay, D. Edge, and **N. P. McKay** (2025), Empowering Learners-Teaching Reproducible Research with Open-Source Tools, pp. 303–310
86. Praet, N., M. Van Daele, K. Wils, P. J. Haeussler, R. C. Witter, **N. P. McKay**, B. J. Jensen, J. Moernaut, and M. De Batist (2025), Refining the earthquake history of south-central Alaska through lake records, *Earth-Science Reviews*, p. 105249
85. Paine, A. R., J. Frieling, T. M. Shanahan, T. A. Mather, **N. P. McKay**, S. A. Robinson, D. M. Pyle, I. M. Fendley, R. Kiely, and W. D. Gosling (2025), Evidence for millennial-scale interactions between Hg cycling and hydroclimate from Lake Bosumtwi, Ghana, *Climate of the Past*, 21(4), 817–839
84. Holtzman, H., E. K. Thomas, M. Erb, L. Marshall, I. S. Castañeda, D. Kaufman, **N. P. McKay**, and M. Melles (2025), Early Holocene atmospheric circulation changes over northern Europe based on isotopic and biomarker evidence from Kola Peninsula, *Paleoceanography and Paleoclimatology*, 40(3), e2024PA005,076

2025

83. *Marshall, L. P., D. S. Kaufman, N. H. Bigelow, M. S. Bolton, E. C. Cohen, B. M. Damon, B. P. Finney, B. J. Jensen, **N. P. McKay**, M. J. Medina, et al. (2025), A 15,800 year record of productivity, carbon accumulation and environmental change at Eight Mile Lake and its catchment, central Alaska, *Arctic, Antarctic, and Alpine Research*, 57(1), 2523,083

2024

82. *Hancock, C. L., M. P. Erb, **N. P. McKay**, S. G. Dee, and R. F. Ivanovic (2024), A global Data Assimilation of Moisture Patterns from 21 000–0 BP (DAMP-21ka) using lake level proxy records, *Climate of the Past*, 20(12), 2663–2684
81. Arzey, A. K., H. V. McGregor, T. R. Clark, J. M. Webster, S. E. Lewis, J. Mallela, **N. P. McKay**, H. W. Fahey, S. Chakraborty, T. B. Razak, and M. J. Fischer (2024), Coral skeletal proxy records database for the Great Barrier Reef, Australia, *Earth System Science Data*, 16(10), 4869–4930
80. Larocca, L. J., J. M. Lea, M. P. Erb, **N. P. McKay**, M. Phillips, K. A. Lamantia, and D. S. Kaufman (2024), Arctic glacier snowline altitudes rise 150 m over the last 4 decades, *The Cryosphere*, 18(8), 3591–3611, doi: 10.5194/tc-18-3591-2024
79. **McKay, Nicholas P.**, D. S. Kaufman, S. H. Arcusa, H. Kolus, D. Edge, M. P. Erb, C. Hancock, C. C. Routson, M. Zarczyński, L. P. Marshall, G. Roberts, and F. Telles (2024), The 4.2 ka event is not remarkable in the context of Holocene climate variability, *Nature Communications*, 15(1), 6555
78. Wheeler, C., J. K. Pearman, J. D. Howarth, M. J. Vandergoes, K. Holt, S. A. Trewick, X. Li, L. Thompson, G. Thomson-Laing, M. Picard, C. Moy, **N. P. McKay**, A. Moody, C. Shepherd, V. van den Bos, K. Steiner, and S. A. Woodothers (2024), A paleoecological investigation of recent cyanobacterial blooms and their drivers in two contrasting lakes, *Harmful Algae*, 131, 102,563
77. Thomson-Laing, G., J. D. Howarth, J. Atalah, M. J. Vandergoes, X. Li, J. K. Pearman, S. Fitzsimons, C. Moy, A. Moody, C. Shepherd, **N. P. McKay**, and S. Wood (2024), Sedimentary ancient DNA reveals the impact of anthropogenic land use disturbance and ecological shifts on fish community structure in small lowland lake, *Science of The Total Environment*, p. 171266

2023

76. Konecky, B. L., **N. P. McKay**, G. M. Falster, S. L. Stevenson, M. J. Fischer, A. R. Atwood, D. M. Thompson, M. D. Jones, J. J. Tyler, K. L. DeLong, et al. (2023), Globally coherent water cycle response to temperature change during the past two millennia, *Nature Geoscience*, 16(11), 997–1004
75. *Marshall, L. P., D. S. Kaufman, R. S. Anderson, **N. P. McKay**, and E. A. Schuur (2023), Organic-Matter Accumulation and Degradation in Holocene Permafrost Deposits Along a Central Alaska Hillslope, *Journal of Geophysical Research: Biogeosciences*, 128(9), e2022JG007,290
74. Zhu, F., J. Emile-Geay, K. J. Anchukaitis, **N. P. McKay**, S. Stevenson, and Z. Meng (2023), A pseudoproxy emulation of the PAGES 2k database using a hierarchy of proxy system models, *Scientific Data*, 10(1), 624
73. Cluett, A. A., E. K. Thomas, **N. P. McKay**, O. C. Cowling, I. S. Castañeda, and C. Morrill (2023), Lake Dynamics Modulate the Air Temperature Variability Recorded by Sedimentary Aquatic Biomarkers: A Holocene Case Study From Western Greenland, *Journal of Geophysical Research: Biogeosciences*, 128(7), e2022JG007,106, doi: <https://doi.org/10.1029/2022JG007106>
72. *Thurston, L. L., E. Schiefer, **N. P. McKay**, and D. S. Kaufman (2023), Suspended sediment deposition and sediment yields at Lake Peters, northeast Brooks Range, Alaska: Fluvial-and lake-based approaches, *Earth Surface Processes and Landforms*, 48(13), 2521–2535

2023

71. Thomas, E. K., A. A. Cluett, M. P. Erb, **N. P. McKay**, J. P. Briner, I. S. Castañeda, M. C. Corcoran, O. C. Cowling, D. B. Gorbey, K. R. Lindberg, et al. (2023), Early Holocene Laurentide Ice Sheet Retreat Influenced Summer Atmospheric Circulation in Baffin Bay, *Geophysical Research Letters*, 50(13), e2023GL103428
70. *Hancock, C. L., **N. P. McKay**, M. P. Erb, D. S. Kaufman, C. R. Routson, R. F. Ivanovic, L. J. Gregoire, and P. Valdes (2023), Global Synthesis of Regional Holocene Hydroclimate Variability Using Proxy and Model Data, *Paleoceanography and Paleoclimatology*, p. e2022PA004597
69. Walter, R. M., H. R. Sayani, T. Felis, K. M. Cobb, N. J. Abram, A. K. Arzey, A. R. Atwood, L. D. Brenner, É. P. Dassié, K. L. DeLong, B. Ellis, M. J. Fischer, N. F. Goodkin, J. A. Hargreaves, H. K. K Halimeda Kilbourne, **N. P. McKay**, S. A. Murty, R. D. Ramos, E. V. Reed, D. Samanta, S. C. Sanchez, and J. Zinke (2023), The CoralHydro2k Database: a global, actively curated compilation of coral $\delta^{18}\text{O}$ and Sr/Ca proxy records of tropical ocean hydrology and temperature for the Common Era, *Earth System Science Data*, 15, 2081–2116, doi: 10.5194/essd-15-2081-2023

2022

68. Erb, M. P., **N. P. McKay**, N. Steiger, S. Dee, C. Hancock, R. F. Ivanovic, L. J. Gregoire, and P. Valdes (2022), Reconstructing Holocene temperatures in time and space using paleoclimate data assimilation, *Climate of the Past*, 18(12), 2599–2629
67. Routson, C. C., M. P. Erb, and **N. P. McKay** (2022), High latitude modulation of the Holocene North American monsoon, *Geophysical Research Letters*, 49(16), e2022GL099772
66. **McKay, N. P.**, J. Emile-Geay, and D. Khider (2022a), Database interoperability, uncertainty quantification and reproducible workflows in the paleogeosciences (Version ec2022), *Earthcube Annual Meeting 2022 - Computational notebooks*, doi: 10.5281/zenodo.6780665
65. Thompson, D., J. Conroy, B. Konecky, S. Stevenson, K. DeLong, **N. P. McKay**, E. Reed, L. Jonkers, and M. Carré (2022), Identifying hydro-sensitive coral $\delta^{18}\text{O}$ records for improved high-resolution temperature and salinity reconstructions, *Geophysical Research Letters*, p. e2021GL096153
64. Kaufman, D. S., and **N. P. McKay** (2022), Past and future warming—direct comparison on multi-century timescales, *Climate of the Past*, 18(4), 911–917
63. *Arcusa, S. H., **N. P. McKay**, C. Wiman, S. Patterson, S. E. Munoz, and M. A. Aquino-López (2022), A Bayesian approach to integrating radiometric dating and varve measurements in intermittently indistinct sediment, *Quaternary Geochronology*, 4(1), 409–433
62. Manety, S., D. Khider, C. Heiser, **N. P. McKay**, J. Emile-Geay, and C. Routson (2022), PaleoRec: A sequential recommender system for the annotation of paleoclimate datasets, *Environmental Data Science*, 1
61. *Broadman, E., D. S. Kaufman, R. S. Anderson, S. Bogle, M. Ford, D. Fortin, A. C. Henderson, J. H. Lacey, M. J. Leng, **N. P. McKay**, et al. (2022), Reconstructing postglacial hydrologic and environmental change in the eastern Kenai Peninsula lowlands using proxy data and mass balance modeling, *Quaternary Research*, 107, 1–26
60. Pearman, J. K., S. A. Wood, M. J. Vandergoes, J. Atalah, S. Waters, J. Adamson, G. Thomson-Laing, L. Thompson, J. D. Howarth, D. P. Hamilton, X. Pochon, L. Biessy, K. A. Brasell, J. Dahl, R. Ellison, S. J. Fitzsimons, H. Gard, T. Gerrard, R. Gregersen, M. Holloway, X. Li, D. J. Kelly, R. Martin, K. McFarlane, **N. P. McKay**, A. Moody, C. M. Moy, S. Naeher, R. Newnham, R. Parai, M. Picard, J. Puddick, A. B. Rees, L. Reyes, M. Schallenberg, C. Shepherd, J. Short, K. S. Simon, K. Steiner, C. Å unde, M. Terezow, and J. Tibby (2022), A bacterial index to estimate lake trophic level: National scale validation, *Science of The Total Environment*, 812, 152385, doi: <https://doi.org/10.1016/j.scitotenv.2021.152385>

2021

59. Schiefer, E., J. Geck, J. S. Ostman, **N. P. McKay**, N. Praet, M. G. Loso, and D. S. Kaufman (2021), Fluvial suspended sediment transfer and lacustrine sedimentation of recent flood turbidites in proglacial Eklutna Lake, western Chugach Mountains, Alaska, *Hydrological Processes*, *35*(10), e14,375
58. Sun, C., T. Shanahan, P. DiNezio, **N. P. McKay**, and P. Roy (2021), Spring warming drives past and future shifts in Great Plains storm intensity, *Nature Geoscience*, *14*(12), 912–917
57. *Thomas, J. E., D. S. Kaufman, N. Praet, **N. P. McKay**, M. V. Daele, B. J. Jensen, and M. D. Batist (2021), A 2300-year record of glacier fluctuations at Skilak and Eklutna Lakes, south-central Alaska, *Quaternary Science Reviews*, *272*, 107,215
56. Routson, C. C., D. S. Kaufman, **N. P. McKay**, M. P. Erb, S. H. Arcusa, K. J. Brown, M. E. Kirby, J. P. Marsicek, R. S. Anderson, G. Jiménez-Moreno, et al. (2021), A multiproxy database of western North American Holocene paleoclimate records, *Earth System Science Data*, *13*(4), 1613–1632
55. **McKay, N. P.**, J. Emile-Geay, and D. Khider (2021a), geoChronR—an R package to model, analyze, and visualize age-uncertain data, *Quaternary Geochronology*, *3*(1), 149–169
54. *Arcusa, S., **N. P. McKay**, C. Routson, and S. Munoz (2020a), Dust-drought interactions over the last 15,000 years: a network of lake sediment records from the San Juan Mountains, Colorado, *The Holocene*, *30*(4), 559–574

2020

53. Turney, C. S., R. T. Jones, **N. P. McKay**, E. Van Sebille, Z. A. Thomas, C.-D. Hillenbrand, and C. J. Fogwill (2020a), A global mean sea surface temperature dataset for the Last Interglacial (129–116 ka) and contribution of thermal expansion to sea level change, *Earth System Science Data*, *12*(4), 3341–3356
52. *Arcusa, S. H., **N. P. McKay**, C. M. Carillo, and T. R. Ault (2020b), Dust-Drought Nexus in the southwestern United States: A Proxy-Model Comparison Approach, *Paleoceanography and Paleoclimatology*, *35*(12), e2020PA004,046
51. Konecky, B. L., **N. P. McKay**, O. V. Churakova (Sidorova), L. Comas-Bru, E. P. Dassié, K. L. DeLong, G. M. Falster, M. J. Fischer, M. D. Jones, L. Jonkers, D. S. Kaufman, G. Leduc, S. R. Managave, B. Martrat, T. Opel, A. J. Orsi, J. W. Partin, H. R. Sayani, E. K. Thomas, D. M. Thompson, J. J. Tyler, N. J. Abram, A. R. Atwood, J. L. Conroy, Z. Kern, T. J. Porter, S. L. Stevenson, and L. von Gunten (2020), The Iso2k Database: A global compilation of paleo- $\delta^{18}\text{O}$ and $\delta^2\text{H}$ records to aid understanding of Common Era climate, *Earth System Science Data*, *12*(3), 2261–2288, doi: 10.5194/essd-2020-5
50. Kjellman, S. E., A. Schomacker, E. K. Thomas, L. Håkansson, S. Duboscq, A. A. Cluett, W. R. Farnsworth, L. Allaart, O. C. Cowling, **N. P. McKay**, et al. (2020), Holocene precipitation seasonality in northern Svalbard: Influence of sea ice and regional ocean surface conditions, *Quaternary Science Reviews*, *240*, 106,388
49. Kaufman, D., **N. P. McKay**, C. Routson, M. Erb, C. Dätwyler, P. Sommer, O. Heiri, and B. Davis (2020a), Holocene global mean surface temperature: A multi-method reconstruction approach, *Scientific data*, *7*(1), 1–13
48. Thomas, Z. A., R. T. Jones, C. S. Turney, N. Golledge, C. Fogwill, C. J. Bradshaw, L. Menviel, **N. P. McKay**, M. Bird, J. Palmer, et al. (2020), Tipping elements and amplified polar warming during the Last Interglacial, *Quaternary Science Reviews*, *233*, 106,222
47. Turney, C. S., C. J. Fogwill, N. R. Golledge, **N. P. McKay**, E. van Sebille, R. T. Jones, D. Etheridge, M. Rubino, D. P. Thornton, S. M. Davies, et al. (2020b), Early Last Interglacial ocean warming drove substantial ice mass loss from Antarctica, *Proceedings of the National Academy of Sciences*, *117*(8), 3996–4006

2020

46. *Thurston, L. L., E. Schiefer, **N. P. McKay**, and D. S. Kaufman (2020), Modelling suspended sediment discharge in a glaciated Arctic catchment—Lake Peters, Northeast Brooks Range, Alaska, *Hydrological Processes*, *34*(19), 3910–3927
45. Brierley, C. M., A. Zhao, S. P. Harrison, P. Braconnot, C. J. R. Williams, D. J. R. Thornalley, X. Shi, J.-Y. Peterschmitt, R. Ohgaito, D. S. Kaufman, M. Kageyama, J. C. Hargreaves, M. P. Erb, J. Emile-Geay, R. D’Agostino, D. Chandan, M. Carré, P. J. Bartlein, W. Zheng, Z. Zhang, Q. Zhang, H. Yang, E. M. Volodin, R. A. Tomas, C. Routson, W. R. Peltier, B. Otto-Bliesner, P. A. Morozova, **N. P. McKay**, G. Lohmann, A. N. Legrande, C. Guo, J. Cao, E. Brady, J. D. Annan, and A. Abe-Ouchi (2020), Large-scale features and evaluation of the PMIP4-CMIP6 *midHolocene* simulations, *Climate of the Past*, *16*(5), 1847–1872, doi: 10.5194/cp-16-1847-2020
44. Jonkers, L., O. Cartapanis, M. Langner, **N. P. McKay**, S. Mulitza, A. Strack, and M. Kucera (2020), Integrating palaeoclimate time series with rich metadata for uncertainty modelling: strategy and documentation of the PALMOD 130k marine palaeoclimate data synthesis, *Earth System Science Data*, *12*(2), 1053–1081, doi: 10.5194/essd-12-1053-2020
43. Kaufman, D., **N. P. McKay**, C. Routson, M. Erb, B. Davis, O. Heiri, S. Jaccard, J. Tierney, C. Dätwyler, et al. (2020b), A global database of Holocene paleotemperature records, *Scientific data*, *7*(1), 183

2019

42. *Broadman, E., L. L. Thurston, E. Schiefer, D. Fortin, **N. P. McKay**, J. Geck, M. G. Loso, M. Nolan, S. H. Arcusa, C. W. Benson, R. A. Ellerbroek, M. P. Erb, C. C. Routson, C. Wiman, A. J. Wong, and D. S. Kaufman (2019), An Arctic watershed observatory at Lake Peters, Alaska: weather–glacier–river–lake system data for 2015–2018, *Earth System Science Data*, *11*(4), 1957–1970, doi: 10.5194/essd-11-1957-2019
41. Khider, D., J. Emile-Geay, **N. P. McKay**, Y. Gil, D. Garijo, V. Ratnakar, M. Alonso-Garcia, S. Bertrand, O. Bothe, P. Brewer, et al. (2019), PaCTS 1.0: a crowdsourced reporting standard for paleoclimate data, *Paleoceanography and paleoclimatology*, *34*(10), 1570–1596
40. *Benson, C. W., D. S. Kaufman, **N. P. McKay**, E. Schiefer, and D. Fortin (2019), A 16,000-yr-long sedimentary sequence from Lakes Peters and Schrader (Neruokpuk Lakes), northeastern Brooks Range, Alaska, *Quaternary Research*, pp. 1–17
39. Routson, C. C., S. H. Arcusa, **N. P. McKay**, and J. T. Overpeck (2019a), A 4,500-Year-Long Record of Southern Rocky Mountain Dust Deposition, *Geophysical Research Letters*, *46*(14), 8281–8288
38. PAGES 2k Consortium (2019), Consistent multi-decadal variability in global temperature reconstructions and simulations over the Common Era, *Nature geoscience*, *12*(8), 643–649
37. Fortin, D., N. Praet, **N. P. McKay**, D. S. Kaufman, B. J. Jensen, P. J. Haeussler, C. Buchanan, and M. De Batist (2019), New approach to assessing age uncertainties—The 2300-year varve chronology from Eklutna Lake, Alaska (USA), *Quaternary Science Reviews*, *203*, 90–101
36. Routson, C. C., **N. P. McKay**, D. S. Kaufman, M. P. Erb, H. Goosse, B. N. Shuman, J. R. Rodysill, and T. Ault (2019b), Mid-latitude net precipitation decreased with Arctic warming during the Holocene, *Nature*, *568*(7750), 83
35. Zhu, F., J. Emile-Geay, **N. P. McKay**, G. J. Hakim, D. Khider, T. R. Ault, E. J. Steig, S. Dee, and J. W. Kirchner (2019), Climate models can correctly simulate the continuum of global-average temperature variability, *Proceedings of the National Academy of Sciences*, *116*(18), 8728–8733
34. *Kolus, H. R., D. N. Huntzinger, C. R. Schwalm, J. B. Fisher, **N. P. McKay**, Y. Fang, A. M. Michalak, K. Schaefer, Y. Wei, B. Poulter, J. Mao, N. C. Parazoo, and X. Shi (2019a), Land carbon models underestimate the severity and duration of droughtTMs impact on plant productivity, *Scientific reports*, *9*(1), 2758

2018

33. **McKay, N.P.**, D. S. Kaufman, C. C. Routson, M. P. Erb, and P. D. Zander (2018a), The onset and rate of Holocene Neoglacial cooling in the Arctic, *Geophysical Research Letters*, *45*(22), 12–487
32. Thomas, E., I. Castaneda, **N. P. McKay**, , J. Briner, J. Salacup, K. Nguyen, and A. Schweinsberg (2018), Arctic hydroclimate intensification coincident with hemispheric warming 8,000 years ago, *Geophysical Research Letters*, *45*(19), 10–637
31. Levy, R. H., G. B. Dunbar, M. J. Vandergoes, J. D. Howarth, T. Kingan, A. R. Pyne, G. Brotherton, M. Clarke, B. Dagg, M. Hill, E. Kenton, S. Little, D. Mandeno, C. Moy, P. Muldoon, P. Doyle, C. Raines, P. Rutland, D. Strong, M. Terezow, L. Cochrane, R. Cossu, S. Fitzsimons, F. Florindo, A. L. Forrest, A. R. Gorman, D. S. Kaufman, M. K. Lee, X. Li, P. Lurcock, **N. P. McKay**, F. Nelson, J. Purdie, H. A. Roop, S. G. Schladow, A. Sood, P. Upton, S. L. Walker, and G. S. Wilson (In press), A high-resolution climate record spanning the past 17,000 years recovered from Lake Ohau, South Island, New Zealand, *Scientific Drilling*, doi: 10.5194/sd-6-1-2018
30. Shuman, B. N., C. Routson, **N. P. McKay**, S. Fritz, D. Kaufman, M. E. Kirby, C. Nolan, G. T. Pederson, and J.-M. St-Jacques (2018), Placing the Common Era in a Holocene context: millennial to centennial patterns and trends in the hydroclimate of North America over the past 2000 years, *Climate of the Past*, *14*, 665–686, doi: 10.5194/cp-14-665-2018
29. *Zander, P., D. Kaufman, **N. P. McKay**, S. C. Kuehn, and A. Henderson (2018), Using correlated tephras to refine radiocarbon-based age models, Upper and Lower Whitshed Lakes, south-central Alaska, *Quaternary Geochronology*, *45*, 9–22

2017

28. PAGES 2k Consortium (2nd Author) (2017), A global multiproxy database for temperature reconstructions of the Common Era, *Scientific Data*, *4*, 170,088, doi: 10.1038/sdata.2017.88
27. Schiefer, E., D. Kaufman, **N. P. McKay**, M. Retelle, A. Werner, and S. Roof (2018), Fluvial suspended sediment yields over hours to millennia in the High Arctic at proglacial lake Linnévatnet, Svalbard, *Earth Surface Processes and Landforms*, doi: 10.1002/esp.4264
26. Gil, Y., D. Garijo, V. Ratnakar, D. Khider, J. Emile-Geay, and **N. P. McKay** (2017), A Controlled Crowdsourcing Platform for High-Quality Ontology Development and Data Annotation, *Proceedings of the 16th International Semantic Web (ISWC) Conference*, pp. 231–246

2016

25. Abram, N. J., H. V. McGregor, J. E. Tierney, M. N. Evans, **N. P. McKay**, D. S. Kaufman, and PAGES 2k Consortium (2016), Early onset of industrial-era warming across the oceans and continents, *Nature*, *536*, 411–418
24. Sejrup, H. P., H. Seppä, **N. P. McKay**, D. S. Kaufman, A. Geirsdottir, A. de Vernal, H. Renssen, K. Husum, A. Jennings, and J. T. Andrews (2016), North Atlantic-Fennoscandian Holocene climate trends and mechanisms, *Quaternary Science Reviews*, *147*, 365–378
23. Briner, J., **N. P. McKay**, Y. Axford, O. Bennike, R. S. Bradley, A. de Vernal, D. Fisher, P. Francus, B. Fréchette, K. Gajewski, A. Jennings, D. S. Kaufman, G. H. Miller, C. Rouston, and B. Wagner (2016), Holocene climate change in Arctic Canada and Greenland, *Quaternary Science Reviews*, *147*, 340–364
22. **McKay, N.P.**, and J. Emile-Geay (2016), Technical Note: The Linked Paleo Data framework – a common tongue for paleoclimatology, *Climate of the Past*, *12*, 1093–1100

2016

21. Kaufman, D. S., Y. L. Axford, A. C. Henderson, **N. P. McKay**, W. W. Oswald, C. Saenger, R. S. Anderson, H. L. Bailey, B. Clegg, K. Gajewski, F. S. Hu, M. C. Jones, C. Massa, C. C. Routson, A. Werner, M. J. Wooller, and Z. Yu (2016), Holocene climate changes in eastern Beringia (NW North America) — A systematic review of multi-proxy evidence, *Quaternary Science Reviews*, *147*, 312–339
20. Routson, C. C., C. A. Woodhouse, J. T. Overpeck, J. L. Betancourt, and **N. P. McKay** (2016), Teleconnected Ocean Forcing of Western North American Droughts and Pluvials During the Last Millennium, *Quaternary Science Reviews*, *146*, 238–250
19. Shanahan, T. M., K. A. Hughen, J. T. Overpeck, **N. P. McKay**, W. Gosling, J. Peck, J. King, C. Scholz, and C. Heil (2016), Abrupt transitions in tropical savanna-woodland boundaries controlled by climate-fire and CO₂ interactions, *Scientific Reports*, *6*, doi: 10.1038/srep29587
18. Solomina, O., R. S. Bradley, V. Jomelli, A. Geirsdottir, D. S. Kaufman, J. Koch, **N. P. McKay**, M. Masiokas, G. Miller, A. Nesje, K. Nicolussi, L. A. Owen, H. Wanner, and G. Wiles (2016), Glacier fluctuations during the past 2000 years, *Quaternary Science Reviews*, *149*, 61–90

2015

17. Bothe, O., M. Evans, L. F. Donado, E. G. Bustamante, J. Gergis, H. G. J. Fidel Gonzalez-Rouco, G. Hegerl, A. Hind, J. Jungclaus, D. Kaufman, F. Lehner, **N. P. McKay**, A. Moberg, C. C. Raible, A. Schurer, F. Shi, J. E. Smerdon, L. von Gunten, S. Wagner, E. Warren, M. Widmann, P. Yiou, and E. Zorita (2015), Continental-scale temperature variability in PMIP3 simulations and PAGES 2k regional temperature reconstructions over the past millennium, *Climate of the Past*, *11*, 1673–1699
16. Wang, J., Emile-Geay, D. Guillot, **N. P. McKay**, and B. Rajaratnam (2015), Fragility of reconstructed temperature patterns over the Common Era: Implications for model evaluation., *Geophysical Research Letters*, *10.1002/2015GL065265*
15. *Boldt, R., D. Kaufman, **N. P. McKay**, and J. Briner (2015), Holocene summer temperature reconstruction from sedimentary chlorophyll content, with treatment of age uncertainties, Kurupa Lake, Arctic Alaska, *The Holocene*, *10.1177/0959683614565929*, 1–10
14. Shanahan, T., **N. P. McKay**, K. Hughen, J. Overpeck, B. Otto-Bliesner, C. W. Heil, J. King, C. Scholz, and J. Peck (2015), The time-transgressive termination of the African Humid Period, *Nature Geoscience*, *10.1038/ngeo2329*

2014

13. Kaufman, D.S. (contributing author) (2014), A Community-Driven Framework for Climate Reconstructions, *Eos, Transactions American Geophysical Union*, *95*(40), 361–362, doi: 10.1002/2014EO400001
12. **McKay, N.P.**, and D. Kaufman (2014a), An extended Arctic proxy temperature database for the past 2,000 years, *Scientific Data*, *1*, doi: 10.1038/sdata.2014.26
11. Sundqvist, H. S., D. S. Kaufman, **N. P. McKay**, N. L. Balascio, J. P. Briner, L. C. Cwynar, H. P. Sejrup, H. Seppä, D. A. Subetto, J. T. Andrews, Y. Axford, J. Bakke, H. J. B. Birks, S. J. Brooks, A. de Vernal, A. E. Jennings, F. C. Ljungqvist, K. M. Rühland, C. Saenger, J. P. Smol, and A. E. Viau (2014), Arctic Holocene proxy climate database – new approaches to assessing geochronological accuracy and encoding climate variables, *Climate of the Past*, *10*(4), 1605–1631, doi: 10.5194/cp-10-1605-2014

2013

10. Otto-Bliesner, B. L., N. Rosenbloom, E. J. Stone, **N. P. McKay**, D. J. Lunt, E. C. Brady, and J. T. Overpeck (2013), How warm was the Last Interglacial? New model–data comparisons, *Philosophical Transactions of the Royal Society A: Mathematical, Physical and Engineering Sciences*, 371(2001), doi: 10.1098/rsta.2013.0097
9. PAGES 2k Consortium (member of writing team) (2013), Continental-scale temperature variability during the last two millennia, *Nature Geoscience*, 6
8. Shanahan, T. M., **N. P. McKay**, J. T. Overpeck, J. A. Peck, C. Scholz, C. W. Heil Jr., and J. King (2013a), Spatial and temporal variability in sedimentological and geochemical properties of sediments from an anoxic crater lake in West Africa: Implications for paleoenvironmental reconstructions, *Palaeogeography, Palaeoclimatology, Palaeoecology*, 374, 96–109, doi: 10.1016/j.palaeo.2013.01.008
7. **McKay, N.P.**, D. L. Dettman, R. T. Downs, and J. T. Overpeck (2013a), On the potential of Raman-spectroscopy-based carbonate mass spectrometry, *Journal of Raman Spectroscopy*, 44(3), 469–474, doi: 10.1002/jrs.4218
6. Shanahan, T. M., J. A. Peck, **N. P. McKay**, C. W. Heil Jr., J. King, S. L. Forman, D. L. Hoffmann, D. A. Richards, J. T. Overpeck, and C. Scholz (2013b), Age models for long lacustrine sediment records using multiple dating approaches - An example from Lake Bosumtwi, Ghana, *Quaternary Geochronology*, 15, 47–60, doi: 10.1016/j.quageo.2012.12.001

2012

5. Shanahan, T. M., J. W. Beck, J. T. Overpeck, **N. P. McKay**, J. S. Pigati, J. A. Peck, C. A. Scholz, C. W. Heil Jr., and J. King (2012), Late Quaternary sedimentological and climate changes at Lake Bosumtwi Ghana: New constraints from laminae analysis and radiocarbon age modeling, *Palaeogeography, Palaeoclimatology, Palaeoecology*, 361–362, 49–60, doi: 10.1016/j.palaeo.2012.08.001

2011

4. **McKay, N.P.**, J. Overpeck, and B. Otto-Bliesner (2011a), The role of ocean thermal expansion in Last Interglacial sea level rise, *Geophysical Research Letters*, 38(14), L14,605, doi: 10.1029/2011GL048280

2009

3. Kaufman, D., D. Schneider, **N. P. McKay**, C. Ammann, R. Bradley, K. Briffa, G. Miller, B. Otto-Bliesner, J. Overpeck, B. Vinther, and A. Lakes (2009), Recent warming reverses long-term Arctic cooling, *Science*, 325(5945), 1236, doi: 10.1126/science.1173983
2. **McKay, N.P.**, and D. S. Kaufman (2009), Holocene climate and glacier variability at Hallet and Greyling Lakes, Chugach Mountains, south-central Alaska, *Journal of Paleolimnology*, 41(1), 143–159, doi: 10.1007/s10933-008-9260-0

2008

1. **McKay, N.P.**, D. S. Kaufman, and N. Michelutti (2008), Biogenic silica concentration as a high-resolution, quantitative temperature proxy at Hallet Lake, south-central Alaska, *Geophysical Research Letters*, 35(5), doi: 10.1029/2007GL032876

Other Publications

2024

13. Scropton, N., and **N. P. McKay** (2024), The Hunt for Holocene Abrupt Climate Change, *PLOS Climate*, 3(12), e0000547

2023

12. Franklin, H., E. K. Thomas, J. Williams, J. M. Aguilar, I. S. C. neda, K. H. Freeman, **N. P. McKay**, and C. Morrill (2023), Building a controlled vocabulary for the international lipid biomarker database, *PAGES News*
11. Wood, S., M. Vandergoes, J. Howarth, J. Pearman, X. Li, C. Shepherd, R. Gergersen, G. Thomson-Laing, L. Thompson, A. Moody, S. Waters, J. Thompson-Laing, L. Biessy, C. Moy, J. Short, J. Tibby, R. Martin, A. Rees, J. Dahl, L. Reyes, E. Crouch, R. Tremain, T. A. Te Koha, E. Yackulic, and **N. P. McKay** (2023a), Paleolimnological analysis of 14 lakes in the Manawatu-Whanganui Region., *Nelson: Cawthron Institute. Report 3949. Prepared for Horizons Regional Council.*
10. Wood, S., L. Biessy, J. Pearman, S. Waters, M. Vandergoes, X. Li, J. Howarth, A. Moody, C. Moy, G. Thomson-laing, L. Thompson, L. Reyes, A. Rees, C. Shepherd, and **N. P. McKay** (2023b), A review of the current and past health of lakes in the Tasman region and implications for ongoing management and protection, *Cawthron Institute. Report 3944. Prepared for Tasman District Council.*

2022

9. Kaufman, D., J. Hunter, and **McKay, N.** (2022), PAGES 2k data portal and the LiPDverse, *PAGES Magazine*, 30(2), 131

2018

8. Emile-Geay, J., D. Khider, **N. P. McKay.**, D. Garijo, Y. Gil, and V. Ratnakar (2018), LinkedEarth: supporting paleoclimate data standards and crowd curation, *PAGES News*, 26, 62–63
7. **McKay, N. P.**, and J. Emile-Geay (2018), Linked PaleoData: A resource for open, reproducible, and efficient paleoclimatology, *PAGES News*, 26, 71
6. Hakim, G., S. Dee, J. Emile-Geay, **N. P. McKay**, and K. Rehfeld (2018), Accelerating Progress in Proxy–Model Synthesis Using Open Standards, *PAGES News*, 26, 73

2016

5. Emile-Geay, J., and **N. P. McKay** (2016), Paleoclimate data standards, *PAGES News*, 24(1), 47

2014

4. **McKay, N.P.** (2014a), A novel multiproxy approach: The PAGES North America 2k working group, *PAGES News*, 22(2), 100
3. Anchukaitis, K., and **N. P. McKay** (2014), PAGES2k: Advances in climate field reconstructions, *PAGES News*, 22(2), 98

2013

2. Kaufman, D., **N. P. McKay**, T. Kiefer, and L. von Gunten (2013), A Regional View of Climate Change, *Global Change Magazine*, 81, 18–23

2013

1. von Gunten, L., D. Anderson, B. Chase, M. Curran, J. Gergis, E. Gille, W. Gross, S. Hanhijärvi, D. Kaufman, T. Kiefer, **N. P. McKay**, I. Mundo, R. Neukom, M. Sano, A. Shah, J. Tyler, A. Viau, S. Wagner, E. Wahl, and D. Willard (2013), The backbone of PAGES 2k: data management and archiving, *PAGES News*, 21(2), 87

Presentations

Only presentations given by myself, or students for whom I was lead advisor, are listed. Other coauthored presentations omitted

*Denotes NAU student lead presenter

2025

79. *Medlin, D., and **N. P. McKay** (2025), Extending Drought Risk Assessment Through the Past Millennium: Machine Learning Integration of Paleoclimate PDSI and Modern USDM Data. AGU Fall Meeting, New Orleans, LA, [Oral]
78. **McKay, N. P.**, and D. Khider (2025), TUPS: Table Understanding for Paleoclimate Studies, *NSF CyberPI Meeting, Denver, Colorado*, [Poster]
77. **McKay, N. P.** (2025), Paleoenvironmental Records of Extreme Events: Data curation, services and provenancing, *National Academies' consensus study on Functions and Criteria for a New Center for Paleoenvironmental Records of Extreme Events*, [Invited Talk]

2024

76. **McKay, N. P.**, D. S. Kaufman, S. Arcusa, D. Edge, M. P. Erb, C. Hancock, H. Kolus, C. C. Routson, M. Zarczyński, L. Marshall, G. Roberts, and F. Telles (a), The 4.2 ka event is not remarkable in the context of century-scale Holocene climate variability, *Seminar, University of California Santa Barbara*, [Invited Seminar]
75. **McKay, N. P.**, D. S. Kaufman, S. Arcusa, D. Edge, M. P. Erb, C. Hancock, H. Kolus, C. C. Routson, M. Zarczyński, L. Marshall, G. Roberts, and F. Telles (b), The 4.2 ka event is not remarkable in the context of century-scale Holocene climate variability, *AGU Fall Meeting, San Francisco, CA*, [Poster]

2023

74. **McKay, N. P.**, D. Edge, M. Erb, D. Khider, J. Emile-Geay, and C. Routson (2023a), A Paleoclimate Reconstruction Storehouse (PReSto) to integrate paleoclimate data, reconstruction workflows and visualization, *Building Upon the EarthCube Community Workshop, Marina del Rey, California*, [Poster]
73. *Telles, F. (2023a), Columbine Lake discovers dust caused by colonization, *Religious Origins of White Supremacy, Syracuse University, New York*
72. *Telles, F. (2023b), The nexus between droughts, pluvials, and land use on dust emissions in the Colorado Plateau, *Ecological Society of America, Portland, Oregon*
71. **McKay, N. P.**, D. Kaufman, S. Arcusa, and H. Kolus (2023b), Was the 4.2 ka event unusual in context of global Holocene climate variability?, *EGU Spring Meeting, Vienna, Austria*, [Talk]
70. *Telles, F., and **N. P. McKay** (2023), The impacts of droughts, pluvials, and land use decisions on dust accumulation at Columbine Lake, Colorado, *International Conference on Aeolian Research, Las Cruces, New Mexico*
69. **McKay, N. P.** (2023), LiPD-Neotoma Integrations, *Neotoma All Hands Meeting*, [Invited Talk]

2022

- 68. *Telles, F., **N. P. McKay**, and S. Arcusa (2022), How are dust and drought related over the past 3,000 years at Columbine Lake, Colorado?, *Society for Advancing Chicanos/Hispanic & Native Americans in Science, San Juan, Puerto Rico*
- 67. **McKay, N. P.** (2022), Abrupt Change in Climate And Ecosystems: Data and e-infrastructure, *Sustainability, Research and Innovation Congress, Praetoria, South Africa*, [Invited talk]
- 66. *Hancock, C., **N. P. McKay**, M. P. Erb, R. F. Ivanovic, L. J. Gregoire, and P. J. Valdes (2022), Global Synthesis of Regional Holocene Hydroclimate Variability Using Proxy and Model Data, *AGU Fall Meeting 2022*
- 65. **McKay, N. P.**, J. Emile-Geay, and D. Khider (2022b), Database interoperability, uncertainty quantification and reproducible workflows in the paleogeosciences (Version ec2022), *Earthcube Annual Meeting 2022*, [Talk]
- 64. **McKay, N. P.**, C. Routson, and M. Erb (2022c), High latitude modulation of the Holocene North American monsoon, *Biennial Meeting of the American Quaternary Association*, [Talk]

2021

- 63. **McKay, N. P.**, M. Vandergoes, and S. Wood (2021b), The Lakes380 project: Using sediments as indicators of current and historic lake health on a national scale in New Zealand, *AGU Fall Meeting, 2021*, PP24A–02
- 62. *Hancock, C., **N. P. McKay**, M. Erb, L. Gregoire, R. Ivanovic, and P. Valdes (2021), Holocene Hydroclimate: Multi Millennial-Scale Trends in Proxies and Models, *AGU Fall Meeting, 2021*, PP55A–0634
- 61. **McKay, N. P.** (2021a), 2k Network Data Stewardship, *PAGES 2k Network Seminar Series*, [Invited Seminar]
- 60. **McKay, N. P.** (2021b), The mystery of Holocene temperature evolution, *Cawthron Institute, Nelson, New Zealand*, [Invited Seminar]
- 59. **McKay, N. P.** (2021c), The mystery of Holocene temperature evolution, *Victoria University of Wellington, Wellington, New Zealand*, [Invited Seminar]
- 58. **McKay, N. P.** (2021d), The mystery of Holocene temperature evolution, *GNS Science, Lower Hutt, New Zealand*, [Invited Seminar]
- 57. **McKay, N. P.** (2021e), The mystery of Holocene temperature evolution, *University of Otago, Dunedin, New Zealand*, [Invited Seminar]
- 56. **McKay, N. P.** (2021f), New tools for quantifying and propagating age uncertainty in varve records, *PAGES Varve Working Group Seminar Series*, [Invited Seminar]

2020

- 55. *Born, F., S. *Arcusa, **N. P. McKay**, and R. S. Anderson (2020), Regional Wildfire Inferred From Micro-Charcoal Over Past 15,000 years in Southern Colorado USA., in *AGU Fall Meeting*, vol. 2020, pp. PP047–0005
- 54. *Arcusa, S., and **N. P. McKay** (2020), Constraining the role of age uncertainty in event relationships in data-model comparison, in *AGU Fall Meeting*, vol. 2020, pp. PP043–02

2019

- 53. **McKay, N.P.** (2019a), A new global multiproxy Holocene temperature database: a resource for model comparison and evaluation, *AGU Fall Meeting, 2019*, PP31A–07, [Talk]
- 52. *Wiman, C., **N. P. McKay**, C. Routson, S. Arcusa, and S. E. Munoz (2019), Late Holocene spring snowfall and hydroclimate variability inferred from varved sediments, Columbine Lake, Colorado, *AGU Fall Meeting, 2019*, PP42B–04, [Talk]

2019

51. *Kolus, H. R., **N. P. McKay**, D. S. Kaufman, and C. Routson (2019b), Is the 4.2 ka event remarkable in the context of Holocene centennial-scale climate variability?, *AGU Fall Meeting, 2019*, GC11G–1127, [Poster]
50. **McKay, N.P.** (2019b), Climate change and risk, *Fall Meeting of The Casualty Actuaries of the Desert States (CADS)*, Tempe, Arizona, [Invited Talk]
49. *Chaffeur, J., S. Arcusa, and **N. P. McKay** (2019), Examining environmental impact from mining using multiple proxies on a sediment core from Clear Lake, Colorado, USA, *GSA Annual Meeting, Phoenix, Arizona*, [Poster]
48. **McKay, N.P.** (2019c), Climate change and risk, *Arizona Capture Insurance Association Meeting*, Phoenix, Arizona, [Invited Talk]
47. **McKay, N.P.** (2019d), Linked PaleoData and the Climate12k database, *Climate12k workshop*, Ste Croix, Switzerland, [Invited Talk]

2018

46. *Arcusa, S., C. Routson, and **N. P. McKay** (2018a), Temporal variability of dust deposition from Holocene lake sediment records in the San Juan Mountains, CO., *Fall meeting of the American Geophysical Union, Washington, D.C.*, [Poster]
45. *Broadman, E., D. S. Kaufman, A. C. Henderson, R. S. Anderson, E. Berg, M. J. Leng, and **N. P. McKay** (2018), Holocene hydroclimatic change in south-central Alaska inferred from $\delta^{18}\text{O}_{\text{diatom}}$ at Sunken Island Lake, Kenai Peninsula lowlands, *Fall meeting of the American Geophysical Union, Washington, D.C.*, [Poster]
44. *Kolus, H., **N. P. McKay**, and D. Kaufman (2018), How prominent was the 8.2 ka event? A global Holocene perspective, *Fall meeting of the American Geophysical Union, Washington, D.C.*, [Poster]
43. **McKay, N.P.**, J. Emile-Geay, and D. Khider (2018b), Scientific workflows, reproducibility and uncertainty quantification in the paleogeosciences, *Fall meeting of the American Geophysical Union, Washington, D.C.*, [Invited Talk]
42. *Wiman, C., **N. P. McKay**, C. Routson, R. S. Anderson, and S. Arcusa (2018a), Reconstructing Late Holocene Productivity and Climate in Columbine Lake, Colorado, *Fall meeting of the American Geophysical Union, Washington, D.C.*, [Poster]
41. **McKay, N.P.** (2018), The Linked Paleo Data framework (LiPD) - introduction and open discussion, *1st PAGES Webinar - Wednesday 17 October 2018*, [Invited Talk]
40. *Wiman, C., **N. P. McKay**, R. S. Anderson, and C. Routson (2018b), Reconstructing Late Holocene productivity and climate at Columbine Lake, CO through annually laminated sediments, *Rocky Mountain Regional meeting of the Geological Society of America, Flagstaff, AZ*, [Poster]
39. *Arcusa, S., C. Routson, and **N. P. McKay** (2018b), Spatial and temporal variability of dust deposition in the San Juan Mountains, CO, *Dust Impact on Climate and the Environment, Las Cruces, Chile*, [Poster]

2017

38. **McKay, N.P.**, and the PAGES 2k Consortium (2017), Spatial covariability of temperature and hydroclimate as a function of timescale during the Common Era, *AGU Fall Meeting 2017, New Orleans, Louisiana*, [Talk]
37. *Arcusa, S., C. Routson, and **N. P. McKay** (2017), Spatial and temporal variability of dust deposition in the San Juan Mountains, CO: a network of Late Holocene lake sediment records, *Fall meeting of the American Geophysical Union, New Orleans, LA*, [Talk]
36. *Arcusa, S., and **N. P. McKay** (2017), 14,000 year lake sediment dust record from the San Juan Mountains, CO, *Colorado Plateau Biennial Conference, Flagstaff, AZ*, [Talk]

2017

- 35. **McKay, N.P.**, D. Khider, J. Emile-Geay, D. Garijo, V. Ratnakar, and Y. Gil (2017), Supporting paleoclimate research with Semantic Web technologies and community Curation, *Earthcube All Hands Meeting 2017, Seattle WA*, [Poster]
- 34. **McKay, N.P.** (2017), Linked PaleoData: What is it and what can it do for you?, *PAGES 5th Open Science Meeting, Zaragoza, Spain*, [Talk]

2016

- 33. **McKay, N.P.** (2016a), On the PAGES2k project, paleoclimate cyberinfrastructure and integrating paleoclimatology and paleoseismology, *Southern California Earthquake Center, SoSAFE Workshop, Palm Springs, CA*, [Invited Talk]
- 32. **McKay, N.P.** (2016b), A global multiproxy database for temperature reconstructions of the common era, *American Quaternary Association, 24th Biennial Meeting, Santa Fe, NM*, [Invited Talk]
- 31. **McKay, N.P.** (2016c), The structure of Linked Paleo Data, *PaleoData Standards Workshop, Boulder, CO*, [Invited Talk]
- 30. **McKay, N.P.**, D. S. Kaufman, P. D. Zander, and C. C. Routson (2016), The timing and amplitude of Holocene Neoglaciation in the Arctic, *Department of Earth Sciences, University of Southern California, Los Angeles, CA*, [Invited Seminar]
- 29. **McKay, N.P.**, D. S. Kaufman, P. D. Zander, and C. C. Routson (2015a), The timing and amplitude of Holocene Neoglaciation in the Arctic, *AGU Fall Meeting 2015, San Francisco, California*, [Talk]
- 28. **McKay, N.P.**, J. Emile-Geay, and the PAGES2k Consortium (2015b), A global multiproxy database for temperature reconstructions of the Common Era, *AGU Fall Meeting 2015, San Francisco, California*, [Invited Talk]
- 27. **McKay, N.P.**, D. S. Kaufman, P. D. Zander, and C. C. Routson (2015c), The timing and amplitude of Holocene Neoglaciation in the Arctic, *Department of Geosciences, University of Arizona, Tucson, Arizona*, [Invited Seminar]
- 26. **McKay, N.P.** (2014b), Development of the global PAGES 2k temperature database, *PAGES2k AGU 2014 Satellite Meeting*, [Invited Talk]

2015

- 25. **McKay, N.P.** (2015a), Collaborative database building and lessons learned from the PAGES 2k projects, *Open kickoff meeting of the PAGES working group Global Soil and Sediment Transfers in the Anthropocene, Hamburg, Germany*, [Invited talk]
- 24. **McKay, N.P.** (2015b), The State (and Future) of Age Modelling, *Proxy System Modeling Workshop, Catalina Island, CA*, [Invited Talk]
- 23. **McKay, N.P.** (2015c), GeoChronR and ChronRater, *Cyber for Paleo Webinar Series*, [Invited Talk]

2014

- 22. **McKay, N.P.** (2014c), PAGES-Powell North America 2k Database, *AGU Fall Meeting 2014, San Francisco, California*, [Poster]
- 21. **McKay, N.P.**, and D. Kaufman (2014b), The spatial and temporal structure of the onset of Neoglaciation in the Arctic, *PAGES Holocene Workshop, Mt. Hood, OR*, [Invited Talk]
- 20. **McKay, N.P.** (2014d), The more daunting aspects of the (paleo)data, *SAMSI paleoclimate seminar series*, [Invited Talk]

2014

19. **McKay, N.P.** (2014e), Advances in climate field reconstructions and North America 2k, *LOTRED-SA 3rd International Symposium, Medellin, Columbia*, [Invited Talk]
18. **McKay, N.P.**, D. Kaufman, H. S. S. Sundqvist, and N. L. Balascio (2014), The Arctic Holocene Transitions database and ChronRater: a simple approach to assessing the accuracy of age models from Holocene sediment cores, *Age Models, Chronologies and Databases workshop, Belfast, UK*, [talk]

2013

17. **McKay, N.P.**, and D. Kaufman (2013), North-south contrast in climate change across north-western North America during the mid-Holocene transition and the possible relation to western Arctic Ocean sea ice., *AGU Fall Meeting 2013, San Francisco, CA*, [Poster]
16. **McKay, N.P.** (2013), Site-level analyses in PAGES2k, *PageS2k-PMIP3 Workshop, Madrid, Spain*, [Invited Talk]
15. **McKay, N.P.**, H. S. Sundqvist, D. S. Kaufman, and N. L. Balascio (2013b), On the power of a well-formed database: A proxy climate database for the mid-Holocene transition in the Arctic, *3rd International Climate Informatics Workshop, Boulder, Colorado*, [Spotlight talk and poster]
14. **McKay, N.P.**, J. T. Overpeck, T. M. Shanahan, E. Brown, J. A. Peck, C. W. Heil, J. W. King, and C. A. Scholz (2013c), A high-resolution record of West African Monsoon variability for the past 530,000 years from Lake Bosumtwi, southern Ghana, *4th PAGES Open Science Meeting, Goa, India*, [talk]
13. **McKay, N.P.**, J. T. Overpeck, T. M. Shanahan, J. A. Peck, C. W. Heil, J. W. King, and C. A. Scholz (2013d), A 12,000-Year-Long, Annually-Resolved Varve Record Spanning the Last Interglacial from Lake Bosumtwi, Southern Ghana, *2nd PAGES Young Scientist's Meeting, Goa, India*, [Poster]

2012

12. **McKay, N.P.**, and D. S. Kaufman (2012), Data-model comparison of the Mid-Holocene Transition in the Arctic, *2012 PAGES SynTraCE-21 Workshop, Providence, Rhode Island*, [talk]
11. **McKay, N.P.** (2012), Pleistocene climate variability in tropical West Africa on interannual to orbital timescales, inferred from the Lake Bosumtwi sediment record, *School of Earth Sciences and Environmental Sustainability Seminar Series, Fall 2012, Northern Arizona University, Flagstaff, Arizona*, [talk]
10. **McKay, N.P.**, T. R. Ault, and S. St. George (2012a), Improving access to the global paleoclimate dataset through the development of a virtual paleoclimate laboratory in R (vplR), *2nd International Climate Informatics Workshop, Boulder, Colorado*, [Spotlight talk and poster]
9. **McKay, N.P.**, J. T. Overpeck, T. M. Shanahan, E. T. Brown, J. A. Peck, J. W. King, C. Scholz, and C. W. Heil (2012b), Paleohydrologic changes in tropical West Africa on interannual to orbital timescales over the past 500,000 years, *Colloquium of the French Academy of Science on the African Tropical Forest, Paris, France*, [Invited Talk]

2011

8. **McKay, N.P.**, J. T. Overpeck, T. M. Shanahan, J. A. Peck, C. W. Heil, J. W. King, and C. A. Scholz (2011b), A 12,000-Year-Long, Annually-Resolved Varve Record Spanning the Last Interglacial from Lake Bosumtwi, Southern Ghana, *AGU Fall Meeting 2012, San Francisco, California*, [talk]
7. **McKay, N.P.**, J. T. Overpeck, T. M. Shanahan, J. A. Peck, J. W. King, C. A. Scholz, and C. W. Heil (2011c), Interannual- to multicentennial-scale variability in the West African Monsoon during the Eemian, *AGU Fall Meeting 2011, San Francisco, California*, [Poster]

2011	6. McKay, N.P., J. T. Overpeck, and B. Otto-Bliesner (2011d), The role of ocean thermal expansion in Last Interglacial sea level rise, <i>Geodaze 2011, Tucson, Arizona</i>, [talk] 5. McKay, N.P., J. T. Overpeck, T. M. Shanahan, J. A. Peck, J. W. King, C. A. Scholz, and C. W. Heil (2011e), An initial comparison of Eemian and Holocene varve structure and variability in the Lake Bosumtwi drill core record, <i>2nd Workshop of PAGES Varves Working Group, Corpus Christi, Texas</i>, [talk]
2010	4. McKay, N.P., J. T. Overpeck, E. T. Brown, T. M. Shanahan, J. A. Peck, J. W. King, Scholz, C. A., and C. W. Heil (2010), A scanning-XRF record of Lake Bosumtwi sediments: Implications for West African Monsoon variability over the past 500 kyr, <i>Geodaze 2010, Tucson, Arizona</i>, [talk]
2009	3. McKay, N.P., J. T. Overpeck, E. T. Brown, T. M. Shanahan, J. A. Peck, J. W. King, Scholz, C. A., and C. W. Heil (2009), A scanning-XRF record of Lake Bosumtwi sediments: Implications for West African Monsoon variability over the past 500 kyr, <i>AGU Fall Meeting 2009, San Francisco, California</i>, [talk]
2007	2. McKay, N.P., and D. S. Kaufman (2007), A biogenic-silica-inferred temperature reconstruction for the past 2 kyr, and Holocene climate fluctuations from Hallet and Greyling Lakes, Chugach Range, south-central Alaska, <i>International Arctic Workshop, Skaftafell, Iceland</i>, [talk]
2005	1. McKay, N.P., D. S. Kaufman, and D. E. Anderson (2005), Characterization of climatic influences on modern sedimentation in an arctic lake, Svalbard, Norway, <i>Northeast regional Geological Society of America Conference, Saratoga Springs, New York</i>, [talk]

Research Grants & Proposals

Since 2013: A total of twenty four externally funded projects for \$7.0M of local (NAU) funding from the National Science Foundation, Belmont Forum, US Geological Survey, New Zealand Ministry of Business, Innovation and Employment and private funding. Overall funding rate of 46%; 75% as Project Lead PI.

2026	Collaborative Research: CAIG: Advancing Holocene paleoclimate reconstruction and physics-informed neural networks through lake model emulation – [NAU Lead Investigator] – <i>Pending</i> – <i>NSF: CAIG</i> – Requested funds (local): \$485,329
2025	Collaborative Research: Innovative Resources:GENESIS: GENERating Earth Science Infrastructure from Seminal studies – [Co-Investigator] – <i>Pending</i> – <i>NSF: Geoinformatics</i> – Requested funds (local): \$453,467

2025	Collaborative Research: GEO-OSE: Track 2: Building an open science community and services for biomarker researchers in the geosciences – [NAU Lead Investigator] – <i>Pending</i> – <i>NSF: OSE</i> – Requested funds (local): \$79,895
2025	Collaborative Research: GEO-OSE: Track 1: Building an open science community and shared reproducible data flow for lipid biomarker researchers – [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: OSE</i> – Requested funds (local): \$36,590
2024	Collaborative Research: Assessing the ecoclimate sensitivity of North American biome-scale ecotones to climate changes since the last ice age – [NAU Lead Investigator] – <i>Funded</i> – <i>NSF: DEB</i> – Requested funds (local): \$457,275
2024	Investigating spatial patterns of temperature and precipitation in the PATCH project – [Co-Investigator] – <i>Declined</i> – <i>NSF: CLD</i> – Requested funds (local): \$599,314
2024	Collaborative Research: A Synthesis of Hydroclimate Records from Lake Bosumtwi and other African Scientific Drill Cores: New Proxies, Geochronologies and Proxy-Model Integration – [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: P4Climate</i> – Requested funds (local): \$114,429
2024	Sustained Resources: A platform to support reproducible paleogeoscience: facilitating data access, analysis, and visualization with PReSto – [Project Lead Investigator] – <i>Declined</i> – <i>NSF: Geoinformatics</i> – Requested funds (local): \$499,447
2024	Collaborative Research: Elements: TUPS: Table Understanding for Paleoclimate Studies – [NAU Lead Investigator] – <i>Funded</i> – <i>NSF: CSSI</i> – Requested funds (local): \$171,569
2023	Collaborative Research: Patterns of African Hydroclimate: New Geochronologies and Proxy-Model Integration of Million-year Legacy Drill Core Records from Lakes Bosumtwi and Malawi – [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: P4Climate</i> – Requested funds (local): \$99,193
2023	Collaborative Research: GEO OSE Track 2: FORAES3: An integrative Framework for Open, Reproducible and Agile Earth System Science Synthesis – [Project Lead Investigator] – <i>Declined</i> – <i>NSF: GEO Open Science Ecosystem</i> – Requested funds (local): \$600,527

2023	The Arctic permafrost carbon conundrum: will warmer temperatures lead to enhanced Arctic soil carbon emissions or enhanced soil carbon storage over long timescales? – [Investigator] – <i>Declined</i> – <i>NSF: Arctic System Science</i> – Requested funds (local): \$1,040,766
2023	Collaborative Research: GEO OSE Track 1: FROGS: Facilitating Reproducible Open GeoScience – [NAU Lead Investigator] – <i>Funded</i> – <i>NSF: GEO Open Science Ecosystem</i> – Requested funds (local): \$84,520
2023	Testing amino acid paleothermometry in radiocarbon-dated lake sediment– [Investigator] – <i>Funded</i> – <i>NSF: GG</i> – Requested funds (local): \$582,287
2022	Collaborative Research: Paleo Records Of GLacier And Climate changes Inferred from Alaskan Lakes (PROGLACIAL) – [Investigator] – <i>Funded</i> – <i>NSF: P4Climate</i> – Requested funds (local): \$496,646
2021	Collaborative Research: GCR: Linking preindustrial with modern climate indicators to inform future climate change – [Investigator] – <i>Declined</i> – <i>NSF: Growing Convergent Research</i> – Requested funds (local): \$1,264,647
2021	Data synthesis and analysis of carbon climate dynamics on millennial timescales: Implications for 21st Century climate – [Investigator] – <i>Declined</i> – <i>NSF: Arctic System Science</i> – Requested funds (local): \$1,481,022
2021	EarthCube Capabilities: PaleoCube: Enabling Cloud-Based Paleoclimatology– [NAU Lead Investigator] – <i>Funded</i> – <i>NSF: Earthcube</i> – Requested funds (local): \$105,581
2020	Collaborative Research: EarthCube Data Capabilities: PaleoCube: next-generation paleoscience with EarthCube – [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: Earthcube</i> – Requested funds (local): \$251,029
2020	Dust cycle monitoring in the 4 corners region – [NAU Lead Investigator] – <i>Funded</i> – <i>Bob and Judi Brady Foundation</i> – Requested funds (local): \$80,000
2020	Collaborative Research: AccelNet: LINKEDECOS: A Linked Ecosystem of Open Data Resources and Scientists to Investigate Past Biodiversity Dynamics in Socio-environmental Systems – [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: Accelnet</i> – Requested funds (local): \$194,296

2020	Monsoon 21k: A global monsoon synthesis and data model comparison – [Investigator] – <i>Funded</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$503,510
2020	A machine readable paleoseismic event database: toward improving long-term earthquake predictability in southern California – [Investigator] – <i>Funded</i> – <i>NSF: Southern California Earthquake Center</i> – Requested funds (local): \$32,782
2020	Collaborative Research: PReSto: A Paleoclimate Reconstruction Storehouse to Broaden Access and Accelerate Scientific Inference – [Project Lead Investigator] – <i>Funded</i> – <i>NSF: Geoinformatics</i> – Requested funds (local): \$453,467
2020	Collaborative Research: Patterns and processes of abrupt Arctic warming based on paleoclimate observations and models – [NAU Lead Investigator] – <i>Funded</i> – <i>NSF: ARCSS</i> – Requested funds (local): \$527,906
2019	EarthCube Data Capabilities: Collaborative Proposal: PaleoWorkBench - enabling next-generation Earth system science – [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: Earthcube</i> – Requested funds (local): \$247,585
2019	EarthCube Data Capabilities: Collaborative Proposal: Reducing Time-To-Science in the Earth Sciences: Annotations to foster convergence, inclusion, and credit – [NAU Lead Investigator] – <i>Funded</i> – <i>NSF: Earthcube</i> – Requested funds (local): \$209,116
2019	Collaborative Research: AccelNet: LINKEDECOS: A Linked Ecosystem of Open Data Resources and Scientists to Investigate Past Biodiversity Dynamics in Socio-environmental Systems – [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: Accelnet</i> – Requested funds (local): \$210,710
2019	MRI: Acquisition of equipment for an integrated gas analysis and labeling radiocarbon system with a focus on Arctic carbon and geochronology – [Investigator] – <i>Funded</i> – <i>NSF: MRI</i> – Requested funds (local): \$486,652
2018	Collaborative Research: Quantifying Holocene climate variations through data assimilation using proxies and GCM output – [Investigator] – <i>Funded</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$441,947 Abrupt Change in Climate and Ecosystems: Where are the Tipping Points? [Project Lead Investigator] – <i>Funded</i> – <i>Belmont Forum: Science-driven e-Infrastructure Innovation</i> – Requested funds (local): \$152,451

2018	Collaborative Research: Framework: Software: Community Earth System Informatics: Enabling Convergent Science [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: Cyberinfrastructure for Sustained Scientific Innovation</i> – Requested funds (local): \$498,835
2018	MRI: Acquisition of automated graphitization equipment for radiocarbon analysis: Arctic carbon, geochronology, and other applications – [Investigator] – <i>Declined</i> – <i>NSF: Major Research Instrumentation</i> – Requested funds (local): \$411,735
2017	Collaborative Research: Quantifying Holocene climate variations through data assimilation using proxies and GCM output – [Investigator] – <i>Declined</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$443,129
2017	Collaborative Research: Evolution of terrestrial climate and vegetation through the mid-Pleistocene climate transition: A 1.5 Ma record from Stoneman Lake, Arizona– [Investigator] – <i>Declined</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$323,472
2017	Holocene Dustiness in the San Juan Mountains, Colorado – [Investigator] – <i>Declined</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$451,234
2017	Lakes380: past, present, future: Our lakes' health: past, present, future - Me hoki whakamuri kia haere whakamua – [NAU Lead Investigator] – <i>Funded</i> – <i>New Zealand Ministry of Business, Innovation and Employment – Endeavour Fund</i> – Local funds: \$92,418
2017	Collaborative Proposal: EarthCube Integration: THROUGHPUT: Standards and Services for Community Curated Repositories – [NAU Lead Investigator] – <i>Funded at Pilot Level</i> – <i>NSF: Earthcube</i> – Local funds (pilot): \$69,227
2017	MRI: Acquisition of A Mini Carbon Dating System for Understanding Arctic Carbon and Climate (ACCLIMATE) – [Investigator] – <i>Declined</i> – <i>NSF: Major Research Instrumentation</i> – Requested funds (local): \$1,982,320
2016	MRI: Acquisition of A Mini Carbon Dating System for Understanding Arctic Carbon and Climate (ACCLIMATE) – [Investigator] – <i>Declined</i> – <i>NSF: Major Research Instrumentation</i> – Requested funds (local): \$1,971,874
2016	Synthesis of Holocene Proxy Climate Records from Western North America – [Investigator] – <i>Funded</i> – <i>NSF: Paleo-perspectives on climate change</i> – Local funds: \$481,822 (2019 extension increased to \$522,048)

2016	Collaborative Research: Evolution of terrestrial climate and vegetation through the mid-Pleistocene climate transition: A 1.2 Ma record from Stoneman Lake, Arizona – [Investigator] – <i>Declined</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$399,774
2016	Holocene Dustiness in the San Juan Mountains, Colorado – [Investigator] – <i>Declined</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$274,000
2016	The Drought-Dust Nexus in the Four-Corners Region and Impacts on Society – [Lead Investigator] – <i>Funded</i> – <i>Bob and Judi Braudy Foundation</i> – Local funds: \$139,308
2015	EarthCube IA: Collaborative Proposal: LinkedEarth: Crowdsourcing Data Curation & Standards Development in Paleoclimatology [NAU Lead Investigator] – <i>Funded</i> – <i>NSF: Earthcube: Integrated Activities</i> – Local funds: \$113,015
2015	EarthCube IA: Collaborative Proposal: Chains of Provenance: Linking geoscientific archives, repositories, and analysis [Investigator] – <i>Declined</i> – <i>NSF: Earthcube: Integrated Activities</i> – Requested funds (local): \$132,515
2015	Collaborative Research: Evolution of terrestrial climate and vegetation through the mid-Pleistocene climate transition: A 1.2 Ma record from Stoneman Lake, Arizona – [Investigator] – <i>Declined</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$320,589
2015	Holocene Dustiness in the San Juan Mountains, Colorado – [Investigator] – <i>Declined</i> – <i>NSF: Paleo-perspectives on climate change</i> – Requested funds (local): \$203,595
2014	Collaborative research: Developing a system model of Arctic glacial-lacustrine sedimentation for investigating past and future climate change [Lead Investigator] – <i>Funded</i> – <i>NSF: Arctic System Science</i> – Local Funds: \$753,203 plus \$300,000 logistical support
2014	Collaborative Research: GeoChronR – Open-source Tools for the Analysis, Visualization and Integration of Time-Uncertain Geoscientific Data [Lead Investigator] – <i>Funded</i> – <i>NSF: Geoinformatics</i> – Local funds: \$369,346
2013	EarthCube Building Blocks: Crowdsourcing Geoscientific Data Curation [NAU Lead Investigator] – <i>Declined</i> – <i>NSF: Earthcube Building Blocks</i> – Requested funds (local): \$66,179

- | | |
|------|--|
| 2013 | <p>A broader view of North American climate over the past two millennia: Synthesizing paleoclimate records from diverse archives [Lead Investigator] – <i>Funded</i></p> <ul style="list-style-type: none">– <i>USGS: Powell Center</i>– Local funds: \$129,737 |
| 2012 | <p>Collaborative Research: A virtual paleoclimate laboratory to quantify climate reconstruction uncertainty – [Lead Investigator] – <i>Declined</i></p> <ul style="list-style-type: none">– <i>NSF: Paleo-perspectives on climate change</i>– Requested funds (local): \$473,326 |
| 2012 | <p>Collaborative Research (RUI): Alaskan and Peruvian Contributions to a Synthesis of Holocene Proxy Climate Records from the Arctic and Eastern Pacific Rim [Investigator] – <i>Declined</i></p> <ul style="list-style-type: none">– <i>NSF: Paleo-perspectives on climate change</i>– Requested funds (local): \$687,900 |

Teaching

2026	Instructor	Climate Change (ENV 115), Earth and Environmental Data Analysis (EES 680), Northern Arizona University
2025	Instructor	Atmosphere and Hydrosphere (ENV 360), Climate Change (ENV 115), Northern Arizona University
2024	Instructor	Atmosphere and Hydrosphere (ENV 360), Earth and Environmental Data Analysis (EES 680), R Package Development Seminar (EES 698), Northern Arizona University
2023	Instructor	Climate Change (ENV 115), Earth and Environmental Data Analysis (EES 680), 4.2 ka event seminar (EES 698), Northern Arizona University
2022	Instructor	Climate Change (ENV 115), Earth and Environmental Data Analysis (EES 680), Northern Arizona University
2021	Instructor	Climate Change (ENV 115), Earth and Environmental Data Analysis (EES 680), Northern Arizona University
2019	Instructor	Climate Change (ENV 115), Climate Change Methods (ENV 199), Earth and Environmental Data Analysis (EES 680), Northern Arizona University
2018	Instructor	Climate Change (ENV 115), Global Climate Change (ENV 595), Earth and Environmental Data Analysis (EES 680), Climate Dynamics (EES 580), Northern Arizona University
2017	Instructor	Climate Change (ENV 115), Earth and Environmental Data Analysis (EES 599), Northern Arizona University
2016	Instructor	Climate Change (ENV 115), Atmosphere & Hydrosphere (ENV 360), Earth and Environmental Data Analysis (EES 599), Climate Dynamics (EES 599), Paleoclimate Seminar (EES 698), Northern Arizona University
2015	Instructor	Climate Change (ENV 115), Climate Dynamics (EES 599), Northern Arizona University
2014	Instructor	Climate Change (ENV 115), Paleolakes seminar (EES 698), Northern Arizona University
2013	Instructor	Modes of Climate Variability (EES 698), Northern Arizona University

Awards

2022	Eric Grimm Award for Excellence in Open Science and Data Stewardship
2021	Fulbright New Zealand Scholar
2018	AGU 2017 Editors Citation for Excellence in Refereeing
2016	Northern Arizona University Research and Creativity Award: “Most Promising New Scholar”
2012	William G. McGinnies Award for Arid Lands Research

Professional Service and Outreach

2025	Leader: PReSto Project
	Co-Leader: LinkedEarth
	Co-organizer: FROGS workshop (June)

	Data Coordinator: Hydroclimate21
	Member of FAIROS RCN Advisory Council
2024	Leader: ACCEDE and PReSto Projects
	Co-Leader: LinkedEarth
	Co-organizer: PyRates workshop (June)
	Member of FAIROS RCN Advisory Council
2023	Leader: ACCEDE and PReSto Projects
	Co-Leader: LinkedEarth
	Co-organizer: Bring-your-own-data LinkedEarth Hackathon (Jun)
	NSF Panelist
	Member of FAIROS RCN Advisory Council
2022	Leader: ACCEDE and PReSto Projects
	Co-Leader: LinkedEarth
	Organizer: geoChronR Hackathon (Feb)
2021	Leader: ACCEDE and PReSto Projects
	Co-Leader: LinkedEarth
	Data coordinator: iso2k project
	Instructor: Pyleoclim Hackathons (Feb & Oct)
2020	Leader: ACCEDE and PReSto Projects
	Co-Leader: LinkedEarth
	Data coordinator: Temperature 12k, iso2k projects
	NOAA Climate Observation and Monitoring program review panelist
2019	Leader: ACCEDE Project
	Co-Leader: LinkedEarth
	Data coordinator: Temperature 12k, iso2k projects
2018	Co-Leader: LinkedEarth
	Data coordinator: iso2k project
2017	Leader: PAGES North America 2k working group
	Organizer: 2nd geoChronR workshop, Flagstaff, AZ
	Co-Leader: LinkedEarth
	Data coordinator: Global PAGES 2k Network; iso2k project
2016	Leader: PAGES North America 2k working group
	Organizer: 1st geoChronR workshop, Flagstaff, AZ
	Co-Leader: LinkedEarth
	Data coordinator: Global PAGES 2k Network; iso2k project
2015	Leader: PAGES North America 2k working group
	Data coordinator: Global PAGES 2k Network; iso2k project
	Organizer : PAGES/USGS Powell Center “North America 2k working group meeting”, 12-15 October Fort Collins, CO
2014	Leader: PAGES North America 2k working group
	Data coordinator: Global PAGES 2k Network
	Organizer : PAGES/USGS Powell Center “North America 2k working group meeting”, 23-26 June Fort Collins, CO
	Organizer : PAGES “North America 2k AGU Breakout meeting”, 17 December, San Francisco, CA

	Co-organizer: "PAGES 2k - Advances in Climate Field Reconstruction Workshop", 15-16 April, Woods Hole, MA
	Invited panelist for NOAA Paleoclimate ad-hoc review panel
2013	Climate science Q&A accompanying <i>Chasing Ice</i>
2012	Geology display at Knoles Elementary School STEM Night
	Public Lecture – Stories in the mud: What lakes have taught me about past climates. Inaugural McGinnies Lecture, University of Arizona.

Reviewer (Journals)

Since 2011 I have peer-reviewed dozens of manuscripts for the following journals: *Science*; *Nature*; *Nature Geoscience*; *Nature Communications*; *Nature Communications: Earth & Environment*; *Geophysical Research Letters*; *Climate of the Past*, *JGR: Biogeosciences*; *Paleoceanography and Paleoclimate*; *Earth-Science Reviews*; *Scientific Data*; *JGR: Biogeoscience*; *Journal of Paleolimnology*; *Quaternary Science Reviews*; *Palaeogeography*, *Palaeoclimatology*, *Palaeoecology*; *JGR: Oceans*; *Geochemical Transactions*.

I also received the AGU 2017 Editors Citation for Excellence in Refereeing for my reviews of a paper in *Geophysical Research Letters*.

Media Coverage

Print	Arizona Republic, Arizona Daily Star, BBC News, Green Valley News and Sun, NAU Lumberjack, NAU News, NBC News, and Science Daily
Radio	BBC
Television	Arizona Public Media, AZ Family News (Channel 3)
New Media	Nature Publishing Group Journal Club, PAGES 2k Google Hangout

Students and Postdocs Supervised

Served as lead advisor

Postdocs	Michael Erb (2017-2019), Allison Cluett (2021-2022)
Ph.D. Students	Stéphanie Arcusa (2016-2020), Chris Hancock (2020-2024), Ethan Yackulic (2020-2026), Frank Telles (2021-2026)
M.S. Students	Eli Allred (2024 - Present), Sela Patterson (2019-2021), Charlotte Wiman (2017-2019), Ethan Yackulic (2015-2017)

Served on committee

Ph.D. Students	Ellie Broadman, Stacy Kish, Emily Romano, Leah Marshall, Emma Lathrop, Beatrice Bock, Brandon McNamara, Anna Gagne-Landmann, Hunter Allen, Anastasia Pulak
M.S. Students	Annie Wong, Lindsey Gipson, Rebecca Ellerbroek, Charles Mogen, Chris Benson, Rachel Krueger, Lorna Thurston, Hannah Kolus, Doug Steen, Paul Zander, Scarlett Hunt, Caitlin Walker, Bri McMaster Smith, Ryan Ellis