

Matthew W. Salzer - Publications

Brehm N, Christl M, Knowles TDJ *et al.* Tree-rings reveal two strong solar proton events in 7176 and 5259 BCE. *Nature Communications* 13, 1196 <https://doi.org/10.1038/s41467-022-28804-9> **2022**.

Büntgen U, Allen K, Anchukaitis KJ, *et al.* The influence of decision-making in tree ring-based climate reconstructions. *Nature Communications* 12, 3411 <https://doi.org/10.1038/s41467-021-23627-6> **2021**.

Miyake F, Panyushkina IP, Jull AGT, Helama S, Kanzawa K, Moriya T, Nicolussi K, Oinonen M, **Salzer** MW, Takeyama M, Tokanai F, Wacker L, Brehm N. A single-year cosmic ray event of 5410 BCE registered in ^{14}C of tree rings. *Geophysical Research Letters*, 48:11 e2021GL093419 <https://doi.org/10.1029/2021GL093419> **2021**.

Jull AGT, Panyushkina IP, Molnár M, Varga T, Wacker L, Brehm N, Laszló E, Baisan C, **Salzer** MW, Tegel W. Rapid ^{14}C excursion at 3372-3371 BCE not observed at two different locations comment on Wang *et al.* (2017). *Nature Communications*, <https://doi.org/10.1038/s41467-020-20695-y> 12, 712, **2021**.

Tardif JC, **Salzer** MW, Conciatori F, Bunn AG, Hughes MK. Formation, structure and climatic significance of blue rings and frost rings in high elevation bristlecone pine (*Pinus longaeva* D.K. Bailey). *Quaternary Science Reviews*. 244(15) 106516 doi.org/10.1016/j.quascirev **2020**.

Pearson CL, **Salzer** MW, Wacker L, Brewer PW, Sookdeo A, Kunniholm PI. Reply to Manning: Dating of Gordion tree-ring sequence still stands within a year of 745 BC. *Proceedings of the National Academy of Sciences*. 117 (31) 18891; doi.org/10.1073/pnas.2013168117 **2020**.

Pearson CL, **Salzer** MW, Wacker L, Brewer PW, Sookdeo A, Kunniholm PI. Securing timelines in the ancient Mediterranean using multi-proxy annual tree-ring data. *Proceedings of the National Academy of Sciences*. 117 (15) 8410-8415; [doi: 10.1073/pnas.1917445117](https://doi.org/10.1073/pnas.1917445117) **2020**.

Pearson CL, Wacker L, Bayliss A, Brown D, **Salzer** MW, Brewer PW, Bollhalder S, Boswijk G, Hodgins, G. Annual variation in atmospheric ^{14}C between 1700 BC and 1480 BC. *Radiocarbon*, 1-14. [doi:10.1017/RDC.2020.14](https://doi.org/10.1017/RDC.2020.14) **2020**.

Salzer MW, Pearson CL, Baisan CH. Dating the Methuselah Walk bristlecone pine floating Chronologies. *Tree Ring Research* 75(1). <http://dx.doi.org/10.3959/1536-1098-75.1.61>. **2019**.

Bunn AG, **Salzer** MW, Anchukaitis KJ, Breuning JM, Hughes MK. Spatiotemporal variability in the climate growth response of high elevation bristlecone pine in the White Mountains of California. *Geophysical Research Letters* 45. <https://doi.org/10.1029/2018GL080981>. **2018**.

Pearson CL, Brewer PW, Brown D, Heaton T, Hodgins GWL, Jull AGT, Lange TE, **Salzer** MW, Annual radiocarbon record indicates 16th century BCE date for the Thera eruption. *Science Advances* 4:8 eaar8241 [doi:10.1126/sciadv.aar8241](https://doi.org/10.1126/sciadv.aar8241). **2018**.

Bruening JM, Bunn AG, **Salzer** MW. A climate-driven treeline position model in the White Mountains of California over the past six millennia. *Journal of Biogeography* 00:1–10. <https://doi.org/10.1111/jbi.13191>. **2018**.

Miyake F, Jull AGT, Panyushkina IP, Wacker L, **Salzer** MW, Baisan C, Lange TE, Cruz R, Masuda K, Nakamura T. A large ^{14}C excursion in 5480 BC indicates an abnormal sun in the Mid Holocene. *Proceedings of the National Academy of Sciences* 114(5): 881-884, doi:10.1073/pnas.1613144114. **2017**.

Bruening JM, Tran TJ, Bunn AG, Weiss SB, **Salzer** MW. Fine-scale modeling of bristlecone pine treeline position in the Great Basin, USA. *Environmental Research Letters* 12(1), doi:10.1088/1748-9326/aa5432. **2017**.

Tran TJ, Bruening JM, Bunn AG, **Salzer** MW, Weiss SB. Cluster analysis and topoclimate modeling to examine bristlecone pine tree-ring growth signals in the Great Basin, USA. *Environmental Research Letters* 12(1), doi:10.1088/1748-9326/aa5388. **2017**.

Miyake F, Masuda K, Nakamura T, Kimura K, Hakozaki M, Jull AGT, Lange TE, Cruz R, Panyushkina IP, Baisan C, **Salzer** MW. Search for annual ^{14}C excursions in the past. *Radiocarbon*. 1-6. doi:10.1017/RDC. **2017**.

Sigl M, Winstrup M, McConnell JR, Welten KC, Plunkett G, Ludlow F, Büntgen U, Caffee M, Chellman N, Dahl-Jensen D, Fischer H, Kipfstuhl S, Kostick C, Maselli OJ, Mekhaldi F, Mulvaney R, Muscheler R, Pasteris DR, Pilcher JR, **Salzer** MW, Schüpbach S, Steffensen JP, Vinther B, Woodruff TE. Timing and climate forcing of volcanic eruptions for the past 2,500 years. *Nature*, 523: 543-549 doi:10.1038/nature14565. **2015**.

Salzer MW, Larson ER, Bunn AG, Hughes MK. Changing climate response in near-treeline bristlecone pine with elevation and aspect. *Environmental Research Letters*, 9: 114007 doi:10.1088/1748-9326/9/11/114007. **2014**.

Jull AJT, Panyushkina IP, Lange TE, Kukarskih VV, Myglan VS, Clark KJ, **Salzer** MW, Burr GS, Leavitt SW. Excursions in the ^{14}C record at A.D. 774-775 in tree rings from Russia and America. *Geophysical Research Letters*, 41: 8, 3004-3010 doi: 10.1002/2014GL059874. **2014**.

Salzer MW, Bunn AG, Graham NE, Hughes MK. Five millennia of paleotemperature from tree-rings in the Great Basin, USA. *Climate Dynamics*, 42: 5-6, 1517-1526 doi: 10.1007/s00382-013-1911-9. **2014**.

Van West CR, Windes TC, Levine F, Grissino-Mayer HD, **Salzer** MW. The Role of Climate in Early Spanish-Native American Interactions in the U.S. Southwest In. Mathers C, Mitchem JM, Haecker CM, eds. *Initiating New Worlds: Sixteenth-Century Entradas in the American Southwest and Southeast*. Amerind Foundation, Dragoon, Arizona, University of Arizona Press, Tucson. **2013**.

Anchukaitis KJ, Breitenmoser P, Briffa KR, Buchwal A, Büntgen U, Cook ER, D'Arrigo D, Esper J, Evans MN, Frank D, Grudd H, Gunnarson BE, Hughes MK, Kirilyanov AV, Körner C, Krusic PJ, Luckman B, Melvin TM, **Salzer** MW, Shashkin AV, Timmreck C, Vaganov EA, Wilson RJS. Tree rings and volcanic cooling. *Nature Geoscience*, doi:10.1038/ngeo1645. **2012**.

Towner RH, **Salzer** MW. Past Precipitation in the Northern Rio Grande Valley. In Vierra B ed. *From Mountain Top to Valley Bottom: Understanding Past Land-use in the Northern Rio Grande Valley, New Mexico*, University of Utah Press, Salt Lake City. **2012**.

Bale RJ, Robertson I, **Salzer** MW, Loader MJ, Leavitt SW, Gagen M, Harlan TP, McCarroll D. An annually resolved bristlecone pine carbon isotope chronology for the last millennium. *Quaternary Research* 76:22-29, doi:10.1016/j.yqres.2011.05.004. **2011**.

Bunn AG, Hughes MK, **Salzer** MW. Topographically modified tree-ring chronologies as a potential means to improve paleoclimate inference. *Climatic Change* 105:627-634, doi: 10.1007/s10584-010-0005-5. **2011**.

Salzer MW, Hughes MK. *Volcanic eruptions over the last 5,000 years from bristlecone pine tree-ring widths and frost rings*. In Stoffel M, Bollschweiler M, Butler DR, Luckman BH eds. *Tree Rings and Natural Hazards: A State-of-the-Art*. Advances in Global Change Research, 41, Springer, Heidelberg, London, New York, ISBN 978-90-481-8735-5; e-ISBN 978-90-481-8736-2; doi:10.1007/978-90-481-8736-2. **2010**.

Kipfmueller KF, **Salzer** MW. Linear trend and climate response of five-needle pines in the western United States related to treeline proximity. *Canadian Journal of Forest Research* 40(1):134-142, doi:10.1139/X09-187. **2010**.

Kipfmueller KF, Elliott GP, Larson ER, **Salzer** MW. An assessment of the dendroclimatic potential of three conifer species in northern Minnesota. *Tree-Ring Research* 66(2):113-126, doi:10.3959/2009-12.1. **2010**.

Salzer MW, Hughes MK, Bunn AG, Kipfmueller KF. Recent unprecedented tree-ring growth in bristlecone pine at the highest elevations and possible causes. *Proceedings of the National Academy of Sciences* 106(48):20348-20353, doi:10.1073/pnas.0903029106. **2009**.

Towner RH, **Salzer** MW, Parks JA, Barlow KR. Assessing the importance of past human behavior in dendroarchaeological research: examples from Range Creek Canyon, Utah USA. *Tree-Ring Research* 65(2):117-127, doi:10.3959/2008-4.1. **2009**.

Pearson CL, Dale DS, Brewer PW, **Salzer** MW, Lipton J, Manning SW. Dendro-chemistry of White Mountain Bristlecone pines: An investigation via synchrotron radiation scanning x-ray fluorescence microscopy. *Journal of Geophysical Research* 114, doi:10.1029/2008JG000830. **2009**.

Meko DM, Woodhouse CA, Baisan CA, Knight T, Lukas JJ, Hughes MK, **Salzer** MW. Medieval drought in the Upper Colorado Basin. *Geophysical Research Letters* 34, L10705, doi:10.1029/2007GL029988. **2007**.

Salzer MW, Hughes MK. Bristlecone pine tree rings and climatically-effective volcanic eruptions over the last 5000 years. *Quaternary Research* 67:57-68, doi:10.1016/j.yqres.2006.07.004. **2007**.

Salzer MW, Kipfmueller KF. Reconstructed temperature and precipitation on a millennial timescale from tree-rings in the southern Colorado Plateau, USA. *Climatic Change* 70(3):465-487, doi:10.1007/s10584-005-5922-3. **2005**.

Betancourt JL, Grissino-Mayer HD, **Salzer** MW, Swetnam TW. Reply to Baker and Genty's comments on: A test of annual resolution in stalagmite using tree rings. *Quaternary Research* 59, 479. **2003**.

Betancourt JL, Grissino-Mayer HD, **Salzer** MW, Swetnam TW. A test of 'annual resolution' in stalagmites using tree rings. *Quaternary Research* 58, 197-199. **2002**.

Salzer MW. Temperature variability and the northern Anasazi: Possible Implications for Regional Abandonment. *Kiva: Journal of Southwestern Anthropology and History*, 65:295-318. **2000**.

Salzer MW, McCord VAS, Stevens LE, Webb RH. *The dendrochronology of Celtis reticulata in the Grand Canyon: assessing the impact of regulated river flow on tree growth*. In Dean JS, Meko DM, Swetnam TW eds. Tree-Rings, Environment, and Humanity. *Radiocarbon*, 273-281. **1996**.