

SUBMITTED, IN REVIEW, OR IN REVISION PUBLICATIONS (* INDICATES STUDENT AUTHOR, ¹ INDICATES POSTDOCTORAL AUTHOR)

6. Bhattacharya, T, Brennan, PR*, Ibarra, DE, Gagnon, CA, Butler, KL, Terrazas, A, Munk, LA, Boutt, DF, Feng, R, Bullinger, SN, Weisbeck, L. in review. Pleistocene shifts in Great Basin hydroclimate seasonality govern the formation of lithium-rich paleolake deposits. *Quaternary Science Reviews*
5. Fastovich, D¹, **Bhattacharya, T.**, Pérez-Ángel, L., Burls, N.J., Feng, R., Knapp, S. in revision. Plio-Pleistocene evolution of westerly moisture transport into the northern tropical Andes. *Earth and Planetary Science Letters*
4. Prow, A., Lu, Z., Blattler C., He, T., Yang, Z, Singh, P, Kemeny, P., Todes, J., Pohl, A., **Bhattacharya, T.**, van de Schootbrugge, B., Wignall, P.B., Payne, J. in revision. Temporal and spatial dynamics of paleo-redox conditions across the Triassic-Jurassic boundary. *Chemical Geology*
3. Lowenstein, Tim K., Olson, K.J., Stewart B.W., McGee, D., Stroup, J.S., Hudson, A.M., Wendt, K.A., Peale, M.D., Feakins, S.J, **Bhattacharya, T.**, Lund, S. in revision. Unified 200 kyr paleohydrologic history of the southern Great Basin: Death Valley, Searles Lake, Owens Lake and the Devils Hole Cave. *Quaternary Science Reviews*
2. Johnson, A.L.A, Schone, B.R., Leng, M.J., **Bhattacharya, T.**, Moss, D.K., Ivany, L.C.I, Duff, R.P. submitted. Sclerochronological evidence of Quaternary change in life history and environment from the marine bivalve *Glycymeris americana* of the US eastern seaboard. *Palaios*.
1. Johnson, KR, Griffiths, ML, **Bhattacharya, T.**, Borsato, A, Frisia, S, Henderson GM, Legrande A, Lewis, M, Mason, A, Saniya, S, Tierney, J, Wang, JK, Yang, H. in revision. Orbital and millennial variability of Southeast Asian hydroclimate over the past 38,000 years. *Nature Geoscience*.

PEER-REVIEWED PUBLICATIONS (* INDICATES STUDENT AUTHOR)

34. Peale, M **Bhattacharya, T.**, Tierney, J.E., Knott, J.R, Lowenstein, T.K., Feakins, S. accepted. Biomarker evidence for an M2 glacial-pluvial in the Mojave Desert before warming and drying in the late Pliocene. *Paleoclimatology and Paleoceanography*
33. **Bhattacharya, T.**, Ibarra, D.E, Feng, R., Burls, N.J. in press. Geochemical Approaches to Reconstructing Earth's Hydroclimates. *Treatise in Geochemistry*, 3rd

Edition, Elsevier.

32. **Bhattacharya, T.**, Feng, R., Coats, S., Maupin C.R., Brennan, P*, Carter, E.. 2023. California Margin SSTs modulate regional circulation and extreme summer precipitation in the desert southwest. *Environmental Research Letters* 18 04048
31. Rubbelke, C*, **Bhattacharya, T.**, Feng, R., Burls, N.J., Knapp, S., McClymont, E. 2023. Plio-Pleistocene Southwest African Hydroclimate modulated by Benguela and Indian Ocean temperatures. *Geophysical Research Letters* 50(19): doi: 10.1029/2023GL103003
30. Wright, K, Johnson, KR, Serrato Marks, G, McGee, D, **Bhattacharya, T.**, Goldsmith, G, Tabor, CR, Lacaille-Muzquiz, J-L, Lum, G, Beramendi-Orosco, L. 2023. Thermodynamics control precipitation in NE Mexico on orbital to millennial timescale. *Nature Communications* 14:2279.
29. Gagnon, C., Butler, K., Gaviria, E., Terrazas, A., Gao, A., **Bhattacharya, T.**, Boutt D., Munk, L., Ibarra, D. 2023. Paleoclimate controls on lithium enrichment in Great Basin Pliocene-Pleistocene lacustrine clays. *GSA Bulletin*, doi: 10.1130/B36572.1
28. **Bhattacharya, T.**, Krause, S., Penny, D., Wahl, D. 2023. Progress Report: Drought and Water Management in Ancient Maya Society. *Progress in Physical Geography*. doi:10.1177/03091333221129784
27. Knapp, S., Burls, N.J., Dee, S.G., Feng, R., Feakins, S.J., **Bhattacharya, T.**. 2022. A Pliocene Precipitation Isotope Proxy-Model Comparison Assessing the Hydrological Fingerprints of Sea Surface Temperature Gradients. *Paleoceanography and Paleoclimatology* 37(12) : e2021PA004401
26. **Bhattacharya, T.**, Feng, R., Tierney, J.E., *Rubbelke, C., Knapp, S., Burls, N.J., Fu, M. 2022. Expansion and Intensification of North American Monsoon during the Pliocene. *AGU Advances* 3(6). doi: 10.1029/2022AV000757 *chosen as Editor's Highlight*
25. **Bhattacharya, T.**, 2022. An energetic perspective on the Holocene North American Monsoon. *Geophysical Research Letters* 49 (19). *Invited Commentary*. doi: 10.1029/2022GL100782
24. Peaple, M., **Bhattacharya, T.**, Lowenstein, T., McGee, D., Olson, K., Stroup, J., Tierney, J.E., Feakins S.J. 2022. Biomarker and pollen evidence for late Pleistocene pluvials in the Mojave Desert. *Paleoceanography and Paleoclimatology* 37 (10), e2022PA004471
23. Tierney, J.E., Torfstein, A., **Bhattacharya, T.**, Goldstein, S. 2022. Late Quaternary hydroclimate of the Levant: the leaf wax record from the Dead Sea. *Quaternary*

22. *Brennan, P., **Bhattacharya, T.**, Feng, R., Tierney, J.E., *Jorgensen, E.M. 2022. Patterns and Mechanisms of Northeast Pacific Temperature Response to Pliocene Boundary Conditions. *Paleoceanography and Paleoclimatology* 37(7): e2021PA004370.
21. Wright, K, Johnson, KR, **Bhattacharya, T.**, Serrato Marks, G., McGee, D., Ellsbury, D., Peings, Y., Lacaille-Muzquiz, J., Lum, G., Beramendi-Orosco, L., MagnUSDottir, G. 2022. Precipitation in northeast Mexico primarily controlled by the relative warming of Atlantic SSTs. *Geophysical Research Letters* 49(11) e2022GL098186.
20. Kumar, D.M., Tierney, J.E., **Bhattacharya, T.**, Zhu, J., and Murray, J. 2022. Glacial Warming in the Eastern Pacific Warm Pool. *Geophysical Research Letters* 49(10): e2022GL098830
19. Feng, R., **Bhattacharya, T.**, Otto-Bleisner, B., Brady, E., Haywood, A., Tindall, J., Hunter, S., Abe-Ouchi, A., Chan, C., Contoux, C., Guo, C. Li, X., Lohmann, G., Stepanek, C., Tan, N., Zhang, Q., Zhang, Z. 2022. Past terrestrial hydroclimate driven by Earth system feedbacks. *Nature Communications* 13(1), doi: 10.1038/s41467-022-28814-7
18. Inglis, G.N., **Bhattacharya, T.**, Hemingway, J.D., Tierney, J.E., Feakins, S. 2022. Novel molecular approaches for reconstructing terrestrial environmental change. *Annual Reviews of Earth and Planetary Sciences* 50 doi: 10.1146/annurev-earth-032320-095943
17. Anderson, L., Wahl, D., **Bhattacharya, T.** 2022. Understanding Rates of Change: A case study using fossil pollen records from California to assess the potential for and challenges to a regional data synthesis. *Quaternary International* 621 26-36. doi: 10.1016/j.quaint.2020.04.044
16. Kumar, Dervla M., Tierney, J.E., **Bhattacharya, T.**, Jiang, Z., McCarty, L, Murray, J. 2021. Climatic drivers of deglacial SST variability in the eastern Pacific. *Paleoceanography and Paleoclimatology* 36 (10) doi: 10.1029/2021PA004264
15. Peaple, M., Tierney, J.E. McGee, D., Lowenstein, T.K., **Bhattacharya, T.**, Feakins, S.J. 2021. Identifying plant wax inputs in lake sediments using machine learning. *Organic Geochemistry* 156, doi: 10.1016/j.orggeochem.2021.104222

14. Tierney, J.E., Poulsen, C.J., Montañez I.P., **Bhattacharya, T.**, Feng, R., Ford, H.L., Honisch, B., Inglis, G.N., Petersen, S.V., Sahoo, N., Tabor, C.R., Thirumalai, K., Zhu, J., Burls, N.J., Goddérís, Y., Foster, G.L., Huber, B.T., Ivany, L.C., Turner, S.K., Lunt, D.J., McElwain, J.C., Mills, B.J.W., Otto-Bliesner, B.L., Ridgwell, A., Zhang, Y. 2020. Past climates inform our future. *Science* 370 (6517). doi: 10.1126/science.aay3701
13. *Judd, E, **Bhattacharya, T.**, Ivany, L.C. 2020. A dynamical framework for interpreting ancient sea surface temperatures. *Geophysical Research Letters* 47, e2020GL089044. doi: 10.1029/2020GL089044
12. **Bhattacharya, T.**, Coats, S. 2020. Atlantic-Pacific gradients drive Last Millennium hydroclimate variability in Mesoamerica. *Geophysical Research Letters* 47, e2020GL088061. doi: 10.1029/2020GL088061
11. Tierney, J.E., Haywood, A.M. Feng, R. **Bhattacharya, T.**, Otto-Bleisner, B. 2019. Pliocene warmth consistent with greenhouse gas forcing. *Geophysical Research Letters*. doi: 10.1029/2019GL083802
10. DiNezio, P., Tierney, J.E. Otto-Bleisner, B.L., Timmerman, A., **Bhattacharya, T.**, Rosenbloom, N., Brady, E. 2018. Glacial changes in warm pool climate amplified by Indian Ocean. *Science Advances* 4:12
9. **Bhattacharya, T.**, Tierney, J.E., Addison, J.A., Murray, J.W. 2018. Ice sheet modulation of deglacial North American Monsoon intensification. *Nature Geoscience*. doi: 10.1038/s41561-018-0220-7 *chosen for a News and Views feature*
8. **Bhattacharya, T.**, Chiang, J.C.H., Cheng, W. 2017. Ocean-atmosphere dynamics linked to 800-1050 CE dry interval in Mesoamerica. *Quaternary Science Reviews*. doi: 10.1016/j.quascirev.2017.06.005
7. **Bhattacharya, T.**, Tierney, J.E., DiNezio, P. 2017. Glacial reduction of the North American Monsoon via surface cooling and atmospheric ventilation. *Geophysical Research Letters* doi: 10.1002/2017GL073632 *chosen as Journal Editor's Highlight*
6. **Bhattacharya, T.**, Byrne, R. 2016. Late Holocene anthropogenic and climatic influences on fire and regional vegetation in Mexico's Cuenca Oriental. *Global and Planetary Change* 138: 56 – 69.

5. **Bhattacharya, T.**, Byrne, R., Boehnel, H., Wogau, K., Kienel, U., Ingram, B.L. Zimmerman, S. 2015. Cultural implications of late Holocene climate change in the Cuenca Oriental, Mexico. *Proceedings of the National Academy of Sciences* 112(6): 1693-1698.
4. Chiang, J.C.H., Fung, I.Y., Wu, C.-H., Cai, Y., Edman, J.E., Liu, Y., Day, J.E., **Bhattacharya, T.**, Mondal, Y., Labrousse, C.A. 2015. Role of seasonal transitions and westerly jets in East Asian paleoclimate. *Quaternary Science Reviews* 108: 111-129.
3. **Bhattacharya, T.**, Chiang, J.C.H. 2014. Spatial variability and mechanisms underlying El Nino-induced drought in Mexico. *Climate Dynamics* doi: 10.1007/s00382-014-2106-8
2. **Bhattacharya, T.**, Beach T., Wahl, D. 2011. An analysis of modern pollen rain from the Maya Lowlands of northern Belize. *Review of Paleobotany and Palynology* 164: 109-120.
1. Beach, T., Luzzadder-Beach, S., Dunning, N., Jones, J., Lohse, J., Guderjan, T., Bozarth, S., Millspaugh, S., **Bhattacharya, T.** 2009. A review of human and natural changes in Maya Lowlands wetlands over the Holocene. *Quaternary Science Reviews* 28:1710 – 1724