

Selected Glacial Publications

- **Pain, A.J., Martin, J.B., Martin, E.E., *Salinas-Reyes, J.T. and Bennett, C., 2025, Glacial retreat converts exposed landscapes from net carbon sinks to sources, *Nature Communication: Earth and Environment*, 6, 424, <https://doi.org/10.1038/s43247-025-02404-z>.
- Shin, Y., Reisinger, A.J., **Flint, M., *Salinas, T., Martin, J.B., Cohen, M.J., 2025, Nutrient Limitation Induces a Productivity Decline From Light-Controlled Maximum, *JGR Biogeosciences*, 130, e2024JG008597. <https://doi.org/10.1029/2024JG008597>
- Martin, J.B., Pain, A.J., Martin, E.E., 2025, Geochemistry of glacial, proglacial, and deglaciated environments, *Treatise on Geochemistry*, 3e. vol. 3, pp. 251-299. UK: Elsevier, [dx.doi.org/10.1016/B978-0-323-99762-1.00110-8](https://doi.org/10.1016/B978-0-323-99762-1.00110-8).
- Pain, A.J**, Martin, J.B., Martin, E.E., Rennermalm, A., Rahman, S**, 2021, Heterogeneous CO₂ and CH₄ content of glacial meltwater of the Greenland Ice Sheet and implications for subglacial carbon processes, *Cryosphere*, <https://doi.org/10.5194/tc-2020-155>,
- Martin, J.B., Pain, A.J*, Martin, E.E., Rahman, S**, Akerman, P., 2020, Comparisons of nutrients exported from Greenlandic glacial and deglaciated watersheds, *Global Biogeochem. Cycles* 34, e2020GB006661. <https://doi.org/10.1029/2020GB006661>.
- Pain, A.J**, Martin, J.B., Martin, E.E., Rahman, S**, Ackermann, P. 2020, Differences in the quantity and quality of organic matter exported from Greenlandic glacial and deglaciated watersheds, *Global Biogeochemical Cycles*, 34, e2020GB006614. <https://doi.org/10.1029/2020GB006614>.
- Kellerman, A.M., Arellano, A., Podgorski, D.C., Martin, E.E., Martin, J.B., Deuerling, K.M., Bianchi, T.S., Spencer, R.G.M., 2019, Fundamental drivers of dissolved organic matter composition across an Arctic effective precipitation gradient, *Limnology and Oceanography*, DOI: 10.1002/lno.11385.
- Deuerling, K. M.*, Martin, J. B.#, Martin, E. E., Abermann, J., Myreng, S. M., Petersen, D., & Rennermalm, A. K. (2019). Chemical weathering across the western foreland of the Greenland Ice Sheet. *Geochimica et Cosmochimica Acta*, 245, 426-440. <https://doi.org/10.1016/j.gca.2018.11.025>
- Deuerling, K.M.*, Martin, J.B., and Martin, E.E., 2018, Hydrologic exchange and chemical weathering in a proglacial watershed near Kangerlussuaq, west Greenland, *Jour. Hydrology*, 556, 220-232, doi.org/10.1016/j.jhydrol.2017.11.002.
- *Scribner, C. A., Martin, E. E., Martin, J. B., Deuerling, K. M., Collazo, D. F., & Marshall, A. T. (2015). Exposure age and climate controls on weathering in deglaciated watersheds of western Greenland. *Geochimica et Cosmochimica Acta*, 170, 157-172. <https://doi.org/10.1016/j.gca.2015.08.008>
- Gulley, J., Spellman, P., Covington, M., Martin, J.B., Benn, D., and Catania, G., 2013, Large values of hydraulic roughness in subglacial conduits during conduit enlargement: Implications for modeling, *ESPL*, doi: 10.1002/ESP.3447.
- Gulley, J., Grabiec, M., Martin, J.B., Jania, J., Catania, G., and Glowacki, P., 2012, The effects of discrete recharge by moulins and heterogeneity in flow path efficiency at glacier beds on subglacial hydrology, *J. Glaciology*, v 58, p. 926-940.
- Gulley, J., Walthard, P., Martin, J.B., Banwell, A., Benn, D.I., Catania, G., and Willis, I., 2012, Conduit roughness and dye trace breakthrough curves: Why slow velocity and

high dispersivity may not reflect flow in distributed systems, J. Glaciology, v. 58, p. 915 – 925.

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