

Publications

Peer-Reviewed Manuscripts: Published:

28. Burnham, B.S., Bond, C.E., Flaig, P.P., van der Kolk, D.A., and Hodgetts, D., 2022, Outcrop conservation: Promoting accessibility, inclusivity and reproducibility through digital preservation: *The Sedimentary Record*, v. 20, p. 5-14.
27. Burnham, B.S., Flaig, P.P., Brice, R., Young, M., and Spagnoio, M., (accepted - proofing), Catastrophic thermokarst lake drainage and rapid deposition may limit atmospheric carbon release: Submitted to: *GSA Groundwork*.
26. Roberts, A.K., Ambrose, W.A., Flaig, P.P., Steel, R.J., and Olariu, C., 2022 (accepted -proofing), Controls on facies variability and distribution during the Pennsylvanian glacial period from the Lower Strawn Group, Fort Worth Basin, TX: Submitted to: *The American Association of Petroleum Geologists Bulletin*.
25. Bonelli, J.R., and Flaig, P.P., 2022 (published -available online), Quantitative biofacies analysis to identify relationships and refine evolutionary controls for paleosol development, Prince Creek Formation, North Slope, Alaska, USA: *Geosciences, Special Issue -Terrestrial Paleoclimatology and Paleohydrology of the Cretaceous Greenhouse World*, v. 11, 460, <https://doi.org/10.3390/geosciences11110460>
24. Sharman, G.R., Stockli, D.F., Flaig, P.P., Reynolds, R.G., Dechesne, M., and Covault, J.A., 2022 (published -available online), Tectonic influence on axial-transverse sediment routing in the Denver Basin, in Craddock, J.P.,Malone, D.H., Foreman, B.Z., and Konstantinou, A., eds., Tectonic Evolution of the Sevier-Laramide Hinterland, Thrust Belt, Foreland and Post-Orogenic Slab Rollback (150-20 Ma): *Geological Society of America Special Paper 555*: [https://doi.org/10.1130/2021.2555\(11\)](https://doi.org/10.1130/2021.2555(11))
23. Zhang, J., Flaig, P.P., Wartes, M., Aschoff, J., and Shuster, M., 2021, Integrating stratigraphic forward modelling, inversion analysis, and shelf-margin records to guide provenance analysis: An example from the Cretaceous Colville Basin, Arctic Alaska: *Basin Research*, v. 33, p. 1954-1966, DOI: <https://doi.org/10.1111/bre.1254>.
22. Senger, K., Betlem, P., Birchall, T., Buckley, S.J., Coakley, B.J., Eide, C.H., Flaig, P.P., Forien, M., Galland, O., Gonzaga, L., Jensen, M., Kurz, T., Leconte, I., Mair, K., Malm, R. H., Malm, R.H., Mulrooney, M.J., Naumann, N., Nordmo, I., Nolde, N., Ogata, K., Rabbel, O., Schaff, N.W., and Smyrak-Sikora, A., 2021, Using virtual outcrops to make the high Arctic more accessible through the Svalbox Database: *Journal of Geoscience Education*, v. 69, no. 2, p. 123-137, DOI: [10.1080/10899995.2020.1813865](https://doi.org/10.1080/10899995.2020.1813865).
21. Ambrose, W.A., Flaig, P.P., Zhang, J., Olariu, M.I., Denison, C., Demchuk, T., and O'Keefe, J.O., 2020, The Midway to Carrizo succession in the southeastern Texas Gulf Coast: Evolution of a tidally-influenced coastline: *Gulf Coast Association of Geological Societies Journal*, v. 9, p. 41-75.
20. Chiarenza, A.A., Fiorillo, A.R., Tykoski, R.S., McCarthy, P.J., Flaig, P.P., and Conteras, D.L., 2020, The first juvenile dromaeosaurid (Dinosauria, Theropoda) from Arctic Alaska: *PLoS ONE*, v. 15, no. 7, e0235078. <https://doi.org/10.1371/journal.pone.0235078>.
19. Flaig, P.P., Hasiotis, S.T., Prather, T.J., and Burton, D., 2019, Characteristics of a Campanian delta deposit controlled by alternating river-floods and tides: The Loyd Sandstone, Rangely Anticline, Colorado, U.S.A.: *Journal of Sedimentary Research*, v. 89, p. 1181-1206, <https://doi.org/10.2110/jsr.2019.63>.
18. Sharman, G.R., Stockli, D.F., Flaig, P.P., Reynolds, R.G., and Covault, J.A., 2018, Local-to-distant provenance cyclicity of the southern Front Range, central Colorado: Insights from detrital zircon

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17. Flaig, P.P., Hasiotis, S.T., and Fiorillo, A.R., 2018, A paleopolar dinosaur track site in the Cretaceous (Maastrichtian) Prince Creek Formation of Arctic Alaska: Track characteristics and probable trackmakers: *Ichnos*, v. 25, p. 208-220, <http://doi.org/10.1080/10420940.2017.1337011>.

16. Burton, D., Flaig, P.P., and Prather, T.J., 2016, Regional controls on depositional trends in tidally modified deltas: Insights from sequence stratigraphic correlation and mapping of the Loyd and Segó Sandstones, Uinta and Piceance Basins of Utah and Colorado, U.S.A.: *Journal of Sedimentary Research*, v. 86, p. 763–785, <http://doi.org/10.2110/jsr.2016.48>.

15. Flaig, P.P., Hasiotis, S.T., and Jackson, A.M., 2016, An Early Permian, paleopolar, postglacial, river-dominated deltaic succession in the Mackellar–Fairchild formations at Turnabout Ridge, Central Transantarctic Mountains, Antarctica: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 441, no. 2, p. 241-265, <http://doi.org/10.1016/j.palaeo.2015.08.004>.

14. Jackson, A.M., Hasiotis, S.T., and Flaig, P.P., 2016, Ichnology of a paleopolar, river-dominated, shallow marine deltaic succession in the Mackellar Sea: the Mackellar Formation (Lower Permian), Central Transantarctic Mountains, Antarctica: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 441, p. 266-291, <http://doi.org/10.1016/j.palaeo.2015.07.010>.

13. Suarez, C.A., Flaig, P.P., Ludvigson, G.A., Gonzalez, L.A., Tian, R., Zhou, H., McCarthy, P.J., van der Kolk, D.A., and Fiorillo, A.R., 2016, Reconstructing the paleohydrology of a Cretaceous Alaskan paleopolar coastal plain from stable isotopes of bivalves: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 441, no. 2, p. 339-351, <http://doi.org/10.1016/j.palaeo.2015.07.025>.

12. Fiorillo, A.R., McCarthy, P.P., and Flaig, P.P., 2016, A multi-disciplinary perspective on habitat preferences among dinosaurs in a Cretaceous Arctic greenhouse world, North Slope, Alaska (Prince Creek Formation: lower Maastrichtian): *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 441, no. 2, p. 377-389, <http://doi.org/10.1016/j.palaeo.2015.07.024>.

11. van der Kolk, D.A., Flaig, P.P., and Hasiotis, S.T., 2015, Paleoenvironmental reconstruction of a Late Cretaceous, muddy, river-dominated polar deltaic system: Schrader Bluff - Prince Creek Formation transition, Shivugak Bluffs, North Slope of Alaska, U.S.A.: *Journal of Sedimentary Research*, v. 85, p. 903–936, <http://doi.org/10.2110/jsr.2015.58>.

10. Flaig, P.P., Fiorillo, A.R., and McCarthy, P.J., 2014, Dinosaur-bearing hyperconcentrated flows of Cretaceous Arctic Alaska: Recurring catastrophic event beds on a distal paleopolar coastal plain: *PALAIOS*, v. 29, p. 594-611, <http://doi.org/10.2110/palo.2013.133>.

9. Hudock, J.W., Flaig, P.P., and Wood, L.J., 2014, Washover fans: a modern geomorphologic analysis and proposed classification scheme to improve reservoir models: *Journal of Sedimentary Research*, v. 84, no. 10, p. 854-865, <http://doi.org/10.2110/jsr.2014.64>.

8. Flaig, P.P., McCarthy, P.J., and Fiorillo, A.R., 2013, Anatomy, evolution, and paleoenvironmental interpretation of an ancient arctic coastal plain: Integrated paleopedology and palynology from the upper Cretaceous (Maastrichtian) Prince Creek Formation, North Slope, Alaska, USA: in Driese, S.G. and Nordt, L.C., eds.: *New Frontiers in Paleopedology and Terrestrial Paleoclimatology, Paleosols and Soil Surface Analogue Systems, SEPM Special Publication No. 114*, p. 179–230.

7. Suarez, C., Ludvigson, G., Gonzalez, L.A., Fiorillo, A.R., Flaig, P.P., and McCarthy, P.J., 2013, Use of multiple oxygen isotope proxies for elucidating Arctic Cretaceous palaeo-hydrology, in Bojar, A.V.,

Melinte-Dobrinescu, M.C., and Smit, J., eds., Isotopic Studies in Cretaceous Research, *Geological Society of London, Special Publication 382*, p. 185-202, <http://doi.org/10.1144/SP382.3>.

6. Gulbranson, E.L., Isbell, J.L., Taylor, E.L., Ryberg, P., Taylor, T. N., and Flaig, P.P., 2012, Permian polar forests: deciduous and environmental variation: *Geobiology*, v. 10, p. 479–495, <https://doi.org/10.1111/j.1472-4669.2012.00338.x>.

5. Burton, D., Dunlap, D.B., Wood, L.J., and Flaig, P.P., 2011, Lidar intensity as a remote sensor of rock properties: *Journal of Sedimentary Research*, v. 81, p. 339–347, <https://doi.org/10.2110/jsr.2011.31>.

4. Flaig, P.P., McCarthy, P.J., and Fiorillo, A.R., 2011, A tidally influenced, high-latitude coastal-plain: the Upper Cretaceous (Maastrichtian) Prince Creek Formation, North Slope, Alaska, in Davidson, S., Leleu, S., and North, C. eds., From river to rock record: the preservation of fluvial sediments and their subsequent Interpretation: *SEPM Special Publication 97*, p. 233–264.

3. Fiorillo, A.R., McCarthy, P.J., and Flaig, P.P., 2010, Taphonomic and sedimentologic interpretations of the dinosaur-bearing Upper Cretaceous strata of the Prince Creek Formation, northern Alaska: insights from an ancient high-latitude terrestrial ecosystem: *Palaeogeography, Palaeoclimatology, Palaeoecology*, v. 295, p. 376–388, <https://doi.org/10.1016/j.palaeo.2010.02.029>.

2. Fiorillo, A.R., McCarthy, P.J., Flaig, P.P., Brandlen, E., Norton, D., Jacobs, L., Zippi, P., and Gangloff, R.A., 2010, Paleontology and paleoenvironmental interpretation of the Kikak-Tegoseak Dinosaur Quarry, (Prince Creek Formation: Late Cretaceous), Northern Alaska: a multi-disciplinary study of an ancient high-latitude, Ceratopsian Dinosaur Bonebed, in Ryan, M.J., Chinner-Algeier, B.J., and Eberth, D.A., eds., *New perspectives on horned dinosaurs: The Royall Tyrell Museum Ceratopsian Symposium*: Bloomington, Indiana, Indiana University Press, p. 456–477.

1. Fiorillo, A.R., Tykoski, R., Currie, P., McCarthy, P.J., and Flaig, P.P., 2009, Description of two partial Troodon braincases from the Prince Creek Formation (Upper Cretaceous) North Slope, Alaska: *Journal of Vertebrate Paleontology*, v. 29, p. 178–187, <https://www.jstor.org/stable/20491077>.

Peer-reviewed State Reports

Flaig, P.P., and van der Kolk, D.A., 2015, Depositional environments of the Prince Creek Formation along the east side of the Toolik River, Sagavanirktok Quadrangle, North Slope, Alaska: *Alaska Division of Geological & Geophysical Surveys Preliminary Interpretive Report 2015-4*, 17 p., 1 sheet. <http://doi.org/10.14509/29407>.

Peer-Reviewed Manuscripts: in Review or Revision:

Calle, A.Z., Horton, B.K., Garcia, R., Stockli, D.F., Flaig, P.P., Anderson, R.B., and Long, S.P., (in revision), Neoproterozoic-Paleozoic evolution of the Gondwanan margin of the Central Andes: Insights from detrital zircon geochronology: *Gondwanan Research*.

Burnham, B.S., Flaig, P.P., Brice, R., Young, M., and Spagnoio, M., (in revision - resubmitted), Catastrophic thermokarst lake drainage and rapid deposition may limit atmospheric carbon release: Submitted to: *GSA Groundwork*

Ludvigson, G.A., Dieffendorf, A.F., Suarez, M.A., Gonzalez, L.A., Corcoran, M.C., Schlanser, K., Flaig, P.P., McCarthy, P.J., van der Kolk, D.A., Houseknecht, D., and Sanders, M., (in review) Stable isotope tracers of Cretaceous Arctic paleoprecipitation: Prepared for Geosciences *Special Issue - Terrestrial Paleoclimatology and Paleohydrology of the Cretaceous Greenhouse World*.

Buntin, R.C.C. II, Hasiotis, S.T., and Flaig, P.P., (in review), Evaluating the ichnofossil Teredolites as an indicator of salinity and paleoenvironment: Submitted to: *PALAIOS*.

van der Kolk, D.A., Flaig, P.P., and Hasiotis, S.T., (accepted, in revision), Evolution of a high-latitude, river-dominated delta: The Upper Cretaceous Schrader Bluff Formation, Shivugak Bluffs, Arctic Alaska: *Journal of Sedimentary Research*.

Peer-Reviewed Manuscripts: In Prep - Near Submission

Sharman, G., Covault, J., Flaig, P.P., Füsse-Durham, P., Larson, T., Shanahan, T., and Shaw, J., (in prep), Coastal response to global warming during the Paleocene-Eocene Thermal Maximum: Prepared for *Earth Science Reviews*.

Flaig, P.P., Hasiotis, S.T., Boucher, L., Roberts, A.K., and Buntin, C.C., (in prep), Earliest known trace-fossil evidence of marine wood-boring clams: Late Pennsylvanian *Teredolites* from Texas: Prepared for *Science*.

Druckenmiller, P., Johnson, K., Ramezani, J., Tsukui-Shockey, K., Flaig, P.P., McCarthy, P.J., van der Kolk, D.A., and Tomsich, S., (in prep), U-Pb ID-TIMS dating of the dinosaur-bearing Prince Creek Formation (Upper Cretaceous, Campanian-Maastrichtian), Colville River, North Slope, Alaska: Prepared for *GSA Bulletin*.

Field Guidebooks

Denison, C., and Flaig, P.P., 2021, Paleocene-Eocene stratigraphy and paleontology of central Texas: Wilcox Group and Claiborne Group, 28 p.

Flaig, P.P., Armitage, D., and Derewetzky, A., 2019, Deltaic-paralic systems of the Cretaceous Interior Seaway: Sedimentology, ichnology, stratal architectures, and controls: 5 day field course, 86 p.

Wroblewski, A., Hasiotis, S., and Flaig, P., 2019, Sedimentology and ichnology of fluvial and shallow-marine sedimentary environments: AAPG Annual Meeting and Exhibition, San Antonio, Texas, 2 day field course, 78 p.

Raney, J., and Flaig, P.P., 2015, Guidebook for Rocky Mountain Geoscience (12th Grade GeoFORCE) Field Trip in Utah, Wyoming, and Montana, 1 week field course, 91p.

Flaig, P.P., van der Kolk, D.A., and Wood, L.J., 2014, Wave, tide, and river-dominated systems of the Cretaceous Western Interior Seaway: the Kenilworth and Grassy members of the Blackhawk, the Sege, and the Loyd Formations, eastern Utah and northwestern Colorado: The University of Texas at Austin, Bureau of Economic Geology, Quantitative Clastics Laboratory, 2 day field course, 131 p.

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Wood, L.J., Flaig, P.P., Burton, D., and Brame, J., 2011, Tide and wave-influenced shoreline reservoirs of the San Juan Basin, northwest New Mexico and southern Colorado, U.S.A.: The University of Texas at Austin, Bureau of Economic Geology, Quantitative Clastics Laboratory, 2 day field course, 78 p.

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Flaig, P.P., 2010, Depositional environments of the Late Cretaceous (Maastrichtian) dinosaur-bearing Prince Creek Formation: Colville River region, North Slope, Alaska, PhD Dissertation, The University of Alaska-Fairbanks, 311 p.

Flaig, P.P., 2005, Changing fluvial style across the Permian-Triassic boundary, Beardmore Glacier Region, Central Transantarctic Mountains, Antarctica: MSc. Thesis, The University of Wisconsin-Milwaukee, 288 p.