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PROFESSIONAL EXPERIENCE

Assistant Professor

University of Northern British Columbia 2024 – present

Postdoctoral fellow

2019 – 2023

University of Alaska Fairbanks, Department of Chemistry and Biochemistry
USDA Forest Service - PNWRS Juneau Forestry Sciences Lab

Affiliated Scholar - Earth and Climate Sciences Department

2022

Bates College, ME, USA

EDUCATION

PhD - Geosciences, University of Tübingen, Germany

2018

Thesis: Early Eocene paleosols on King George Island, Maritime Antarctica as a paleoenvironmental proxy

MSc - Soil Science, Federal University of Viçosa, Brazil

2012

Dissertation: Soil formation on uplifted marine terraces in a periglacial desert climate, Seymour Island, Antarctica

BSc - Geography, Federal University of Viçosa, Brazil

2010

PUBLICATION LIST

Spinola, D., Margerum, A, Zhang, Y., Hesser, R., D' Amore, D., Portes, R. Rapid soil formation and carbon accumulation along a Little Ice Age soil chronosequence in southeast Alaska. 2024. *Catena*.

Portes, R., **Spinola, D.**, Ketterer, M., Egli, M., Lybrand, R., Fedenko, J., Trainor, T., Dere, A., D' Amore, D. Assessing soil redistribution rates in old-growth temperate rainforests of SE Alaska using $^{239+240}\text{Pu}$ and $\delta^{13}\text{C}$. 2024. *Soil Science Society of America Journal*.

Fedenko, J.; D' Amore, D.; **Spinola, D.**; Portes, R.; Dere, A.; Lybrand, R. A. Spodosol Development and Soil Organic Carbon Distribution along a Lithosequence in Perhumid Coastal Temperate Rainforest. 2024. *Soil Science Society of America Journal*.

Broz, A., Pritchard-Peterson, D., **Spinola, D.**, Schneider, S., Retallack, G., Silva, L. Eocene (50-55 Ma) greenhouse climate recorded in nonmarine rocks of San Diego, CA, USA. 2024. *Scientific Reports*, 14 2613, 107092.

Sousa, D., **Spinola, D.**, Santos, J., Tatumi, S., Yee, M., Pessoa, R., Eltink, E., Lopes, D., Spölt, C., Cherkinsky, A., Reis, H., Silva, J., Auler, A., Júnior, F. Relict soil features in cave sediments record periods of wet climate and dense vegetation over the last 100 kyr in a present-day semiarid region of Northeast Brazil. 2023. *Catena*, 226, 107092.

Spinola, D., Portes, R., Fedenko, J., Lybrand, R., Ashlee, D., Biles, F., Trainor, T., Bowden, D'Amore, D. Lithological controls on soil geochemistry and clay mineralogy across Spodosols in the coastal temperate rainforest of southeast Alaska. 2022. *Geoderma*, 428, 116211.

Krauze, P., Wagner, D., Yang, S., **Spinola, D.**, Kühn, P. Influence of prokaryotic microorganisms on initial soil formation along a glacier forefield on King George Island, maritime Antarctica. 2021. *Sci. Rep.* 11, 13135.

Bezak, N., et al., **Spinola, D.** and the Soil Erosion modelling team, 2021. Soil erosion modelling: A bibliometric analysis. *Environmental Research*. 111087.

Borrelli, P., et al, **Spinola, D.**, and the Soil Erosion Modelling team, 2021. Soil erosion modelling: A global review and meta-analysis. *Science of the Total Environment*, 780. 146494.

Spinola, D. N., Portes, R. C., Srivastava, P., Torrent, J., Barrón, V., Kühn, P., 2018. Diagenetic reddening of Early Eocene paleosols on King George Island, Antarctica. *Geoderma* 315, 149–159.

Spinola, D.N., Pi-Puig, T., Solleiro-Rebolledo, E., Egli, M., Sudo, M., Sedov, S., Kühn, P. 2017. Origin of clay minerals in Early Eocene volcanic paleosols on King George Island, Maritime Antarctica. *Sci. Rep.* 7, 6368.

***Spinola, D.N.**, Portes, R., Schaefer, C.E.G.R., Solleiro-Rebolledo, E., Pi- Puig, T., Kühn, P., 2017. Eocene paleosols on King George Island, Maritime Antarctica: Macromorphology, micromorphology and mineralogy. *Catena* 152, 69–81.

Portes, R., **Spinola, D.N.**, Santiago, J., Carlos, J., Marciano, L., Inácio, E., Filho., Kühn, P., Schaefer, C.E.G.R., 2016. Pedogenesis across a climatic gradient in tropical high mountains , Cordillera Blanca – Peruvian Andes. *Catena* 147, 441–452.

Souza, K.K, D., Schaefer, C.E.G.R., Nogueira, F., Simas, B., **Spinola, D.N.**, Paula, M.D., 2014. Soil formation in Seymour Island, Weddell Sea, Antarctica. *Geomorphology* 225, 87–99.

Most recent abstracts (< 3 years)

Spinola, D., Jones, D., Stewart, A., Sanborn, P., D'Amore, D. A continental-scale study of Spodosol properties across North America and their implications for organic carbon accumulation. *Centennial Celebration and Congress of the International Union of Soil Sciences*, 2024.

Spinola, D. Climate, time, or diagenesis? Exploring geochemical and mineralogical pedosignatures in soils and paleosols. *Goldschmidt*, 2023. Invited talk.

Broz, A Pritchard-Peterson, D., **Spinola, D.**, Schneider., S Retallack, G.J. , Silva, L. (2023). Eocene (50- 55 Ma) greenhouse climate recorded in nonmarine rocks of San Diego, CA, USA. *American Geophysical Union*, 2023.

Stewart, A., Halabinsky, M., Butman, D., D' Amore, D., **Spinola, D.**, Babcock, C., Moskal, L.M. (2023). Exploring controls on soil carbon stocks across uplands and wetland over a regional climate gradient in the Pacific Northwest using geospatial data. *American Geophysical Union*, 2023.

Spinola, D., Janson, J., Portes, R., Lybrand, R., Dere, A., Qafoku, O., Trainor, T., D'Amore, D. Pedogenic and mineralogical influence on soil organic carbon stability and depth distribution in a coastal temperate rainforest, southeast Alaska. *American Geophysical Union*, 2022.

Portes, R., **Spinola, D.**, Protti, L., Ketterer, Hesser, R., Biles, F., Lybrand, R., D'Amore, D. Evolution of Soils and Erosion Rates on Recent Post-glacial Landscapes in the Coastal Temperate Rainforest of Southeast Alaska. *American Geophysical Union*, 2022.

Spinola, D., Trainor, T., Portes, R., R., Dere, A., M., Lybrand., Hesser, R., D'Amore, D. Soil micromorphological features of a Little Ice Age moraine chronosequence of Mendenhall Glacier, Southeast Alaska. *Soil Science Society of America*, 2022.

D'Amore, D., **Spinola, D.**, Lybrand, R., Dere, A., Portes, R. Bringing the Bling to Soil Bulk Density. *Soil Science Society of America*, 2022.

Portes, R., **Spinola, D.**, Ketterer, M., Gundersen, E., Margerum, A., O'Brien, M., Protti, L., King, H., Saltman, E., Bailey, S. The Impact of Deforestation on Soil Erosion Rates in an Experimental Watershed in the Northern Hardwood Forest, USA. *Soil Science Society of America*, 2022.

Qafoku, O., Wirth, M., Chrisler, W., Orr, G., Lybrand, R., Dere, A., **Spinola, D.**, D'Amore, D. Elemental co-localization of nutrients, C, Al, and Fe in soil minerals with electron microscopy and scatterplot-matrix analysis. *Microscopy and Microanalysis*, 2022.

Spinola, D., Trainor, T., Portes, R., R., Dere, A., M., Lybrand., Fedenko, J., Bowden, M., D'Amore, D. Lithological controls on soil geochemistry and clay mineralogy across Spodosols in the coastal temperate rainforest of SE Alaska. *World Congress of Soil Science*, 2022.

Portes, R., **Spinola, D.**, D'Amore, D. V., Ketterer, M., Egli, M., Lybrand, R.A., Trainor, T.P., Fedenko, J. Spodosols development and slope stability in old-growth temperate rainforest of SE Alaska. *Geological Society of America*, 2020.

Spinola, D., Trainor, T., Portes, R., Lybrand, R., Fedenko, J., Dere, A., D'Amore, D. Initial and advanced stages of mineral transformation in alpine and subalpine soils of SE Alaska. *57th Annual Meeting of the Clay Minerals Society*, 2020.

GRANTS AND AWARDS (total funding = ~ \$ 143 k)

- Travel grant – Critical Zone Research Network Workshop, Colorado School of Mines (\$ 650)	2022
- Young Micromorphology Publication Award – International Union of Soil Science (publication*)	2018
- Travel grant - German Academic Exchange Service (DAAD) (~ \$ 2k)	2018
- Travel grant - International Union for Quaternary Research (~ \$ 1k)	2016
- Research grant - Brazilian National Council for Scientific and Technological Development (CNPq) (~ \$ 27k)	2014
- Ph.D. Fellowship - CNPq and DAAD (~ \$ 102k)	2013
- MSc. Fellowship - Brazilian Antarctic Program/CNPq (~ \$10k)	2010