Simon James Goring

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## Contact

Email: goring@wisc.edu; Website: [http://goring.org](http://goring.org/)

## EDUCATION

2012 Ph.D. Biological Sciences, Simon Fraser University, Vancouver BC - Thesis

2003 B.Sc. Plant Science, University of Northern British Columbia Prince George, BC

1999 Forest Technician Diploma, Sir Sandford Fleming College Lindsay, ON

## PROFESSIONAL EXPERIENCE

### Research Positions

**January 2022 – Current**

Data Scientist II. Department of Geography, University of Wisconsin. Madison, WI

**July 2014 – December 2021**

Assistant Scientist. Department of Geography, University of Wisconsin. Madison, WI

**July 2011 – July 2014**

Post-Doctoral Researcher. Department of Geography, University of Wisconsin. Madison, WI

**Adjunct Positions**

**2019 – 2023** University of British Columbia – Department of Computer Science, Adjunct Professor

**Undergraduate Research Experience**

**2004 – 2005** Dr. Staffan Lindgren (University of Northern BC)

**2003 – 2004** Dr. Josef D Ackerman (University of Guelph)

**Spring 2002** Dr. Michael Gillingham (UNBC)

**Summer 2000** Dr. Dale Vitt (University of Alberta)

## PUBLICATIONS

### 2023

Thomer, A. K., Wofford, M. F., Lenard, M. C., Dominguez Vidana, S., & Goring, S. J. (2023). Revealing Earth science code and data-use practices using the Throughput Graph Database. In X. Ma, M. Mookerjee, L. Hsu, & D. Hills (Eds.), *Recent advancement in geoinformatics and data science* (Vol. 558). The Geological Society of America.

### 2021

Goring, S., Marsicek, J., Ye, S., Williams, J. W., Meyers, S., Peters, S. E., … Marcott, S. (2021). A model workflow for GeoDeepDive: Locating Pliocene and Pleistocene ice-rafted debris. <https://doi.org/10.31223/X54312>

Uhen, M. D., Buckland, P. I., Goring, S. J., Jenkins, J. P., & Williams, J. W. (2021). The EarthLife Consortium API: An extensible, open-source service for accessing fossil data and taxonomies from multiple community paleodata resources. *Frontiers of Biogeography*, *13*(2).

Mottl, O., Flantua, S. G., Bhatta, K. P., Felde, V. A., Giesecke, T., Goring, S., et al.others. (2021). Global acceleration in rates of vegetation change over the past 18,000 years. *Science*, *372*(6544), 860–864.

Loeffler, S., Roth, R. E., Goring, S., & Myrbo, A. (2021). Mobile UX design: Learning from the Flyover Country mobile app. *Journal of Maps*, *17*(2), 39–50.

Lawing, A. M., Blois, J. L., Maguire, K. C., Goring, S. J., Wang, Y., & McGuire, J. L. (2021). Occupancy models reveal regional differences in detectability and improve relative abundance estimations in fossil pollen assemblages. *Quaternary Science Reviews*, *253*, 106747.

### 2020

Trachsel, M., Dawson, A., Paciorek, C. J., Williams, J. W., McLachlan, J. S., Cogbill, C. V., et al.others. (2020). Comparison of settlement-era vegetation reconstructions for STEPPS and REVEALS pollen–vegetation models in the northeastern United States. *Quaternary Research*, *95*, 23–42.

Chevalier, M., Davis, B. A., Heiri, O., Seppä, H., Chase, B. M., Gajewski, K., et al.others. (2020). Pollen-based climate reconstruction techniques for late Quaternary studies. *Earth-Science Reviews*, *210*, 103384.

### 2019

Wang, Y., Goring, S. J., & McGuire, J. L. (2019). Bayesian ages for pollen records since the last glaciation in North America. *Scientific Data*, *6*(1), 1–8.

Seeley, M., Goring, S., & Williams, J. W. (2019). Assessing the environmental and dispersal controls on *Fagus grandifolia* distributions in the Great Lakes region. *Journal of Biogeography*, *46*(2), 405–419.

Mustaphi, C. J. C., Brahney, J., Aquino-Lopez, M. A., Goring, S., Orton, K., Noronha, A., … Brushworth, J. P. (2019). Guidelines for reporting and archiving 210Pb sediment chronologies to improve fidelity and extend data lifecycle. *Quaternary Geochronology*, *52*, 77–87.

Khider, D., Emile-Geay, J., McKay, N. P., Gil, Y., Garijo, D., Ratnakar, V., et al.others. (2019). PaCTS 1.0: A crowdsourced reporting standard for paleoclimate data. *Paleoceanography and Paleoclimatology*, *34*(10), 1570–1596.

Dawson, A., Paciorek, C. J., Goring, S. J., Jackson, S. T., McLachlan, J. S., & Williams, J. W. (2019). Quantifying trends and uncertainty in prehistoric forest composition in the upper Midwestern United States. *Ecology*, *100*(12), e02856.

### 2018

Goring, S. J., Graham, R., Loeffler, S., Myrbo, A., Oliver, J. S., Ormond, C., & Williams, J. W. (2018). The Neotoma Paleoecology Database: A research outreach nexus. *Elements of Paleontology*.

Goring, S. J., Whitney, K. S., & Jacob, A. L. (2018). Accessibility is imperative for inclusion. *Frontiers in Ecology and the Environment*.

Williams, J. W., Grimm, E. C., Blois, J. L., Charles, D. F., Davis, E. B., Goring, S. J., et al.others. (2018). The Neotoma Paleoecology Database, a multiproxy, international, community-curated data resource. *Quaternary Research*, *89*(1), 156–177.

Salonen, J. S., Helmens, K. F., Brendryen, J., Kuosmanen, N., Väliranta, M., Goring, S., et al.others. (2018). Abrupt high-latitude climate events and decoupled seasonal trends during the Eemian. *Nature Communications*, *9*(1), 1–10.

Lewthwaite, J., Angert, A., Kembel, S., Goring, S., Davies, T., Mooers, A., … Kerr, J. (2018). Canadian butterfly climate debt is significant and correlated with range size. *Ecography*, *41*(12), 2005–2015.

Farley, S. S., Dawson, A., Goring, S. J., & Williams, J. W. (2018). Situating ecology as a big-data science: Current advances, challenges, and solutions. *BioScience*, *68*(8), 563–576.

Cogbill, C. V., Thurman, A. L., Williams, J. W., Zhu, J., Mladenoff, D. J., & Goring, S. J. (2018). A retrospective on the accuracy and precision of plotless forest density estimators in ecological studies. *Ecosphere*, *9*(4), e02187.

### 2017

Goring, S., Whitney, K. S., Jacob, A., Bruna, E., & Poisot, T. (2017). Making scientific content more accessible. *Authorea Preprints*.

Goring, S. J., & Williams, J. W. (2017). Effect of historical land-use and climate change on tree-climate relationships in the upper Midwestern United States. *Ecology Letters*, *20*(4), 461–470.

Tipton, J., Hooten, M., & Goring, S. (2017). Reconstruction of spatio-temporal temperature from sparse historical records using robust probabilistic principal component regression. *Advances in Statistical Climatology, Meteorology and Oceanography*, *3*(1), 1.

Peyron, O., Combourieu-Nebout, N., Brayshaw, D., Goring, S., Andrieu-Ponel, V., Desprat, S., et al.others. (2017). Precipitation changes in the Mediterranean basin during the Holocene from terrestrial and marine pollen records: A model–data comparison. *Climate of the Past*, *13*(3), 249–265.

Paciorek, C. J., Goring, S. J., Thurman, A. L., Cogbill, C. V., Williams, J. W., Mladenoff, D. J., … McLachlan, J. S. (2017). Correction: Statistically-estimated tree composition for the Northeastern United States at Euro-American settlement. *Plos One*, *12*(1), e0170835.

Marlon, J. R., Pederson, N., Nolan, C., Goring, S., Shuman, B., Robertson, A., et al.others. (2017). Climatic history of the northeastern United States during the past 3000 years. *Climate of the Past*, *13*(10), 1355–1379.

### 2016

Goring, S. J., Mladenoff, D. J., Cogbill, C. V., Record, S., Paciorek, C. J., Jackson, S. T., et al.others. (2016). Novel and lost forests in the Upper Midwestern United States, from new estimates of settlement-era composition, stem density, and biomass. *PLoS One*, *11*(12), e0151935.

Paciorek, C. J., Goring, S. J., Thurman, A. L., Cogbill, C. V., Williams, J. W., Mladenoff, D. J., … McLachlan, J. S. (2016). Statistically-estimated tree composition for the northeastern United States at Euro-American settlement. *PLoS One*, *11*(2), e0150087.

Matthes, J. H., Goring, S., Williams, J. W., & Dietze, M. C. (2016). Benchmarking historical CMIP5 plant functional types across the Upper Midwest and Northeastern United States. *Journal of Geophysical Research: Biogeosciences*, *121*(2), 523–535.

Kujawa, E. R., Goring, S., Dawson, A., Calcote, R., Grimm, E. C., Hotchkiss, S. C., et al.others. (2016). The effects of anthropogenic land cover change on pollen-vegetation relationships in the American Midwest. *Anthropocene*, *15*, 60–71.

Dawson, A., Paciorek, C. J., McLachlan, J. S., Goring, S., Williams, J. W., & Jackson, S. T. (2016). Quantifying pollen-vegetation relationships to reconstruct ancient forests using 19th-century forest composition and pollen data. *Quaternary Science Reviews*, *137*, 156–175.

### 2015

Goring, S. J., Mladenoff, D. J., Cogbill, C. V., Record, S., Paciorek, C. J., Jackson, S. T., et al.others. (2015). Changes in forest composition, stem density, and biomass from the settlement era (1800s) to present in the Upper Midwestern United States. *bioRxiv*, 026575.

Walsh, M. K., Marlon, J. R., Goring, S. J., Brown, K. J., & Gavin, D. G. (2015). A regional perspective on Holocene fire–climate–human interactions in the Pacific Northwest of North America. *Annals of the Association of American Geographers*, *105*(6), 1135–1157.

Goring, S., Dawson, A., Simpson, G., Ram, K., Graham, R., Grimm, E., & Williams, J. (2015). Neotoma: A programmatic interface to the Neotoma Paleoecological Database. *Open Quaternary*, *1*(1).

Combourieu-Nebout, N., Bertini, A., Russo-Ermolli, E., Peyron, O., Klotz, S., Montade, V., et al.others. (2015). Climate changes in the central Mediterranean and Italian vegetation dynamics since the Pliocene. *Review of Palaeobotany and Palynology*, *218*, 127–147.

### 2014

Goring, S. J., Weathers, K. C., Dodds, W. K., Soranno, P. A., Sweet, L. C., Cheruvelil, K. S., … Utz, R. M. (2014). Improving the culture of interdisciplinary collaboration in ecology by expanding measures of success. *Frontiers in Ecology and the Environment*, *12*(1), 39–47.

Heffernan, J. B., Soranno, P. A., Angilletta Jr, M. J., Buckley, L. B., Gruner, D. S., Keitt, T. H., et al.others. (2014). Macrosystems ecology: Understanding ecological patterns and processes at continental scales. *Frontiers in Ecology and the Environment*, *12*(1), 5–14.

Cheruvelil, K. S., Soranno, P. A., Weathers, K. C., Hanson, P. C., Goring, S. J., Filstrup, C. T., & Read, E. K. (2014). Creating and maintaining high-performing collaborative research teams: The importance of diversity and interpersonal skills. *Frontiers in Ecology and the Environment*, *12*(1), 31–38.

### 2013

Goring, S., Lacourse, T., Pellatt, M. G., & Mathewes, R. W. (2013). Pollen assemblage richness does not reflect regional plant species richness: A cautionary tale. *Journal of Ecology*, *101*(5), 1137–1145.

Peyron, O., Magny, M., Goring, S., Joannin, S., De Beaulieu, J.-L., Brugiapaglia, E., et al.others. (2013). Contrasting patterns of climatic changes during the Holocene across the Italian Peninsula reconstructed from pollen data. *Climate of the Past*, *9*(3), 1233–1252.

Gill, J. L., McLauchlan, K. K., Skibbe, A. M., Goring, S., Zirbel, C. R., & Williams, J. W. (2013). Linking abundances of the dung fungus *sporormiella* to the density of bison: Implications for assessing grazing by megaherbivores in palaeorecords. *Journal of Ecology*, *101*(5), 1125–1136.

Combourieu-Nebout, N., Peyron, O., Bout-Roumazeilles, V., Goring, S., Dormoy, I., Joannin, S., … Magny, M. (2013). Holocene vegetation and climate changes in the central Mediterranean inferred from a high-resolution marine pollen record (Adriatic Sea). *Climate of the Past*, *9*(5), 2023–2042.

### 2012

Pellatt, M. G., Goring, S. J., Bodtker, K. M., & Cannon, A. J. (2012). Using a down-scaled bioclimate envelope model to determine long-term temporal connectivity of Garry oak (*quercus garryana*) habitat in western North America: Implications for protected area planning. *Environmental Management*, *49*(4), 802–815.

Joannin, S., Brugiapaglia, E., De Beaulieu, J.-L., Bernardo, L., Magny, M., Peyron, O., … Vannière, B. (2012). Pollen-based reconstruction of Holocene vegetation and climate in southern Italy: The case of Lago Trifoglietti. *Climate of the Past*, *8*(6), 1973–1996.

Goring, S., Williams, J., Blois, J., Jackson, S., Paciorek, C., Booth, R., … Christen, J. (2012). Deposition times in the northeastern United States during the Holocene: Establishing valid priors for Bayesian age models. *Quaternary Science Reviews*, *48*, 54–60.

Gill, J. L., Blois, J. L., Goring, S., Marlon, J. R., Bartlein, P. J., Nicoll, K., … Whitlock, C. (2012). Paleoecological changes at Lake Cuitzeo were not consistent with an extraterrestrial impact. *Proceedings of the National Academy of Sciences*.

### 2007 - 2011

Peyron, O., Goring, S., Dormoy, I., Kotthoff, U., Pross, J., De Beaulieu, J.-L., … Magny, M. (2011). Holocene seasonality changes in the central Mediterranean region reconstructed from the pollen sequences of Lake Accesa (Italy) and Tenaghi Philippon (Greece). *The Holocene*, *21*(1), 131–146.

Blois, J., S, G., & A., S. (2011). Integrating paleoecological databases: The Neotoma Consortium Workshop, September 23- 2 26, 2010. *EOS Transactions of the AGU*, *92*, 48.

Goring, S., Lacourse, T., Pellatt, M. G., Walker, I. R., & Mathewes, R. W. (2010). Are pollen-based climate models improved by combining surface samples from soil and lacustrine substrates? *Review of Palaeobotany and Palynology*, *162*(2), 203–212.

Goring, S., Pellatt, M. G., Lacourse, T., Walker, I. R., & Mathewes, R. W. (2009). A new methodology for reconstructing climate and vegetation from modern pollen assemblages: An example from British Columbia. *Journal of Biogeography*, *36*(4), 626–638.

Dormoy, I., Peyron, O., Combourieu Nebout, N., Goring, S., Kotthoff, U., Magny, M., & Pross, J. (2009). Terrestrial climate variability and seasonality changes in the Mediterranean region between 15 000 and 4000 years BP deduced from marine pollen records. *Climate of the Past*, *5*(4), 615–632.

Vamosi, J. C., Goring, S. J., Kennedy, B. F., Mayberry, R. J., Moray, C. M., Neame, L. A., … Elle, E. (2007). Pollination, floral display, and the ecological correlates of polyploidy. *Functional Ecosystems and Communities*, *1*(1), 1–9.

## OTHER PUBLICATIONS

### Software

Goring S., Dominguez S. 2022. neotoma2 – an improved R package for the Neotoma Paleoecological Database. [[GitHub](https://github.com/NeotomaDB/neotoma2)]

Goring S., Stryker M., Nelson JK. 2022. Neotoma API Implementation. [[GitHub](https://github.com/NeotomaDB/api_nodetest)]

Blaauw M & Goring SJ. 2014. clam: Classic age modeling in R. [[GitHub](https://github.com/SimonGoring/clam)]

Goring S. (2013) *neotoma* – an R package for the Neotoma Paleoecological Database. [[GitHub](https://github.com/ropensci/neotoma)]

### Chapters, Comments & Opinion

Keenlyside K, Nantel P, Pellatt M, Goring S, Gray P. (2014) Chapter 6: Natural environment and biodiversity. In: From Impacts to Adaptation – Assessment Update. Natural Resources Canada. [[Open Access](http://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/earthsciences/pdf/assess/2014/pdf/Chapter6-Biodiversity_Eng.pdf)]

Gill JL, Blois JL, Goring S, Marlon JR, Bartlein PJ, Nicoll K, Scott AC, Whitlock C. (2012) Paleoecological changes at Lake Cuitzeo were not consistent with an extraterrestrial impact. *Proceedings of the National Academy of Science*. **109**: E2243. [[Link](http://www.pnas.org/content/109/34/E2243)]

Blois J, Goring S, Smith A. (2011) Integrating paleoecological databases: the Neotoma Consortium Workshop, September 23- 2 26, 2010. *EOS Transactions of the AGU*. **92**:48. [[Link](http://ccr.aos.wisc.edu/resources/publications/pdfs/CCR_1018.pdf)]

Mooers AO, Goring SJ, Turvey S, Kuhn T. (2009) “Holocene extinctions and the loss of feature diversity”. Holocene Extinctions (S. Turvey, ed.) Oxford University Press, Oxford. [[Link](http://www.sfu.ca/~amooers/papers/Mooers_etal_Holocene08.pdf)]

## GRANTS

### Awarded

**2022** Collaborative Research: Disciplinary Improvements for Past Global Change Research: Connecting Data Systems and Practitioners ($250,464 – NSF 2226369)

**2020** Collaborative Research: Neotoma Paleoecology Database, a Multi-Proxy, International, Community-Curated Data Resource for Global Change Research ($318,563 – NSF 1948926)

**2019** EarthCube Data Capabilities: Collaborative Proposal: Reducing Time-To-Science in the Earth Sciences: Annotations to foster convergence, inclusion, and credit ($616,613 – NSF 1928366)

**2019** Belmont Forum Collaborative Research: Abrupt Change in Climate and Ecosystems: Where are the Tipping Points? ($150,000 – NSF ICER 1929476)

**2017** Collaborative Proposal: EarthCube Integration: THROUGHPUT: Standards and Services for Community Curated Repositories ($179,739 – NSF 1740699)

**2015** Collaborative Research: Leveraging domain repositories in Flyover Country, a mobile app for geoscience outreach, data discovery, and visualization ($162,778 – NSF 1550855)

**2015** Collaborative Research: Neotoma Paleoecology Database, Integrative Cyberinfrastructure for Global Change Research ($353,394 – NSF 1550707)

**2015** Building Interoperable Cyberinfrastructure (CI) at the Interface between Paleogeoinformatics and Bioinformatics ($285,000 – NSF EarthCube Integrative Activities)

**2014** Climate Prediction in No-Analogue Space – PI (Amazon Web Services in Education Grant, 1yr – $6000)

**2014** Memorandum of Understanding – United States Forest Service Forest Inventory and Analysis Program

## TEACHING

**2023** DSCI591: Data Science Capstone Project (University of British Columbia)

**2022** DSCI591: Data Science Capstone Project (University of British Columbia)

**2021** DSCI591: Data Science Capstone Project (University of British Columbia)

**2020** DSCI591: Data Science Capstone Project (University of British Columbia)

**2020** DSCI513: Databases and Data Retrieval (University of British Columbia)

**2019** DSCI591: Data Science Capstone Project (University of British Columbia)

**2015** GEOG378: Hybrid-online - Introduction to Geocomputing (University of Wisconsin)

**2014** Pollen: Field, Laboratory, and Data Analysis workshop. Instructor & co-lead. University of Maine, June 2014

**2013** Climatic Environments of the Past University of Wisconsin – Madison. Guest lecturer (Dating Techniques, The Anthropocene)

**2013** Quaternary Vegetation Dynamics – University of Wisconsin – Madison. Some course design, multiple (4) lectures & some lab design.

**2012** Conservation Paleoecology University of Wisconsin – Madison Seminar, co-instruction with J. Williams, J. Blois, A. Ordonez.

**2012** Camp PalEON – University of Notre Dame Environmental Research Center. Age-depth modeling unit, support for student projects & lake coring module.

**2009** Using R for Paleoecological Research – University of the Fraser Valley, Abbotsford, BC. One day seminar introducing R workflows for paleoecological research

**2008** Paleobiology and Palynology (TA; Simon Fraser University)

**2007** General Biology (TA; Simon Fraser University)

### Data Science Mentoring

UBC Master of Data Science Program.

#### 2023

* Insurance Corporation of British Columbia - Object Detection and classification (cloud computing, object detection, OCR)
* GoldSpot Discoveries - Image Classification on highly unbalanced datasets (image analysis, Python package development, cloud computing)
* (Partner) Neotoma Paleoecology Database - Natural Language Processing and textual relevance from the scientific literature (NLP, SQL)

#### 2022

* Properly - Predicting real estate closing sale price variance from realtor listings (image analysis, ML modeling)
* GoldSpot Discoveries - Classification of geological drill-core records (image classification)

#### 2021

* Deetkin Consulting - Survival dynamics of small businesses in Vancouver over time (space-time analysis, survival analysis)
* Translink - Understanding the spatiotemporal patterns responsible for transit delays in Vancouver, BC (space-time analysis, data architecture, SQL)

#### 2019

* E-Comm 911 - Predictive analysis for human resources management (survival analysis and scheduling)
* Quebec Iron Ore - Image classification of geological features (image classification, annotation)
* QxMD - Article relevance and recommendation systems from user behaviour in an mobile application (recommendation systems, NLP, data architecture, SQL)

## PRESENTATIONS

### Invited Presentations and Workshops

Goring S. The neotoma package and semi-automated chronology construction for paleoecological databases. *Neotoma Chronology Workshop*. Belfast UK, January 2014.

Goring S, Lacourse T, Pellatt MG, Mathewes RW. Pollen richness is not equivalent to plant species richness: a cautionary tale. *AASP 46th Annual Meeting*. San Francisco, October 2013.

Goring S, Brewer S, Grimm E. Neotoma – Hands-on computing workshop. *AASP 46th Annual Meeting*. San Francisco, October 2013.

Goring S. The more things change: Using the past to understand an uncertain future. Faculty of Environment; University of Waterloo. Waterloo, ON. July 30, 2013.

Goring S, Weathers KC, Dodds WK, Soranno PA, Sweet LC, Cheruvelil KS, Kominoski JS, Rüegg J, Thorn AM, Utz RM. Cultural credit for collaborative contributions to support interdisciplinary ecology. *NSF Macrosystems Biology Meeting*. Washington DC. June 6, 2013.

Goring S, Williams JW, Ruid M, MacLachlan JS, Jackson ST, Paciorek CJ, Thurman A, Zhu J, Brooks W, Mladenoff DJ, Cogbill C, Record S, Dietze MC. What the Public Lands Survey can tell us about climate change, vegetation and models of future (and past) change. Quaternary Paleoecology Series. University of Minnesota. April 10, 2013.

Goring S, Williams JW, Ruid M, MacLachlan JS, Jackson ST, Paciorek CJ, Thurman A, Zhu J, Brooks W, Mladenoff DJ, Cogbill C, Record S, Dietze MC. Using the past to predict the future: The Public Land Survey, 19th century climate and the PalEON Project. Yi-Fu Tuan Seminar Series. University of Wisconsin – Madison. February 15, 2013

### Selected Presentations

Goring S, Williams JW, Ruid M, MacLachlan JS, Jackson ST, Paciorek CJ, Thurman A, Zhu J, Brooks W, Mladenoff DJ, Cogbill C, Record S, Dietze MC. Estimating pre-settlement vegetation in the American Midwest: Exploring climate relationships and links to proxy data for robust data assimilation. International Biogeography Society Biennial Meeting. January 2013, Miami, FL.

Goring S. Holocene reconstructions for British Columbia, Canada using pollen as a proxy for climate: applications, validation and trepidation. Climate People and the Environment Program Seminar Series. Feb 24, 2012. Madison, WI.

Goring S, Mathewes R. Towards a comprehensive Holocene temperature and precipitation record for British Columbia using a pollen-based multi-method approach. CANQUA - GeoHydro 2011. August 28 – September 1, 2011. Quebec City, QC.

Goring S, Mathewes RW, Lacourse T, Pellatt MG. Match and Mismatch: Pollen-Based Climate Reconstruction and the Instrumental Records from Southwestern British Columbia, Canada. 8th European Paleobotany – Palynology Conference. July 2010. Budapest, Hungary.

Goring SJ, Lacourse T, Pellatt MG, Walker IR & RW Mathewes. Multivariate climate reconstruction using a modern pollen database for British Columbia. IPC/IOPC. August 31, 2008. Bonn, Germany.

Goring SJ & RW Mathewes. Southwestern British Columbia Revisited: Paleoclimatic History. Botany 2008. July 28, 2008. Vancouver, British Columbia.

## AWARDS AND RECOGNITION

**2023** M. Lee Allison Award for Geoinformatics - Geological Society of America

**2015** Earthcube Distinguished Lecturer - Early Career ($600 – National)

**2015** Climate Informatics 2015 ($1100 Travel Grant – National)

**2015** EarthCube Early Career Travel Grant ($500 – National)

**2011** CANQUA – Alexis Dreimanis Award ($2000 – National Scholarship)

**2011** President’s Research Stipend ($6,250 –Simon Fraser University)

**2009** NSERC PGS-D3 Scholarship ($63,000 – National Scholarship)

**2009** AASP – The Palynological Society – Conference Travel Grant ($250USD)

**2009** CANQUA – Student Poster Award (3rd Place with TS Kuhn - $100)

**2008** Canadian Society of Ecology and Evolution, Poster Award ($500)

**2008** Simon Fraser University Graduate Fellowship ($6000)

**2007** Iowa Lakeside Laboratory Scholarship ($390 - Iowa State University)

**2004** van Adrichem Summer Research Bursary ($600 – UNBC)

**1999** JB Goodhew Award (Recognition, Sir Sanford Fleming College)

## PUBLIC SERVICE

### University Service

**2022 - 2023** Diversity, Equity, Inclusion and Climate Committee (University of Wisconsin)

**2009** Biological Sciences Graduate Student Council (SFU)

**2006** Faculty Search Committee – Two NSERC Canada Research Chair Tier II positions (SFU)

**2002 – 2004** Student Senator: Member of the Senate Committees for University Budget & Library (UNBC)

### Academic Service

**2023** Chair-Elect, Division of Geoinformatics - Geological Society of America

**2019 - 2023** Lead, IT Committee - Neotoma Paleoecology Database

**2015** Program Committee – Climate Informatics 2015

**2015** Developed the Early Career Travel Grant program for EarthCube

**2014 - 2015** Organizing Committee – NSF EarthCube All Hands Meeting

**2014 - 2015** Engagement Team – NSF EarthCube Program

**2013** Editorial Board - Open Quaternary

**2013** Review Editor – Frontiers in Ecology and Evolution: Paleoecology

**2013** PalEON Settlement Vegetation Workshop Organizer, Madison, WI

**2012 – 2016** Canadian Association of Palynologists Executive, International Federation of Palynological Societies representative

**2011** PalEON Settlement Vegetation Workshop Organizer, Madison, WI

**2010** Neotoma Consortium Workshop, Participant, Madison, WI

**2009** AASP – The Palynological Society Annual Meeting – Copy editor

### Reviewer

*Ecology Letters*; *Journal of Biogeography*; *Open Ecology Journal*; *Journal of Ecology*; *Environmental Modelling and Software*; *American Midland Naturalist*, *Climate of the Past*; *Earth Science Reviews*; *Quaternary Science Reviews*; *Frontiers in Ecology and Evolution: Paleoecology*; *Geology*; *PLOS One*; *Open Quaternary*

### Public Service

**2015** Storytelling with Data – An introduction to data science (Two half day workshops) IT Academy, University of Wisconsin, Madison, WI.

**2011** Big Brothers, In-School Mentoring Program, Vancouver, BC (since 2005)

**2010** Why is Paleoecology Awesome? (Talk) East Side High School, Vancouver, BC

**2009** Royal Canadian Mounted Police: Forensic analysis of pollen assemblages.