

CLEMENT P. BATAILLE, PhD

University of Ottawa
Earth and Environmental Sciences
ARC building Room 419, 25 Templeton St, Ottawa, ON K1N
French and American citizen

cbataill@uottawa.ca
(613) 562-5800 ext. 6736
Links: [RG](#); [g-citations](#); [website](#)

EDUCATION

- PhD** Geology/Geochemistry
University of Utah, Geology and Geophysics, Salt Lake City, UT 8/2012-8/2014
Purdue University, Earth & Atmospheric Sciences, Lafayette, IN 8/2009-8/2012
Advisor: Gabriel J. Bowen
Dissertation: “Modeling Spatial $^{87}\text{Sr}/^{86}\text{Sr}$ Variations in Earth Surface Pools for Provenance Studies”
- MSc** Hydrology/Hydrochemistry
Institut Polytechniques de Toulouse, Toulouse, France 8/2006-6/2008
H2SE Master Program: Hydrology, Hydrochemistry, Soil and Environment
Co-advisors: Philippe Behra and Chi Hua Huang
- MSc** Agronomical and Environmental Engineering
Institut Polytechniques de Toulouse, Toulouse, France 8/2006-8/2008
Thesis: “Effect of Roughness and Water Content on Chemical Transfer from Soil to Runoff under Simulated Rainfall”
- BA** Agronomical and Environmental Engineering
Institut Polytechniques de Toulouse, Toulouse, France 8/2005-8/2007
Advanced Biological and Geological Sciences Preparatory Program
Lycée Ozenne, CPGE BCPST, Toulouse, France 8/2002-8/2004

RESEARCH EXPERIENCE

- Assistant Professor** – Earth and Environmental Sciences
University of Ottawa, Earth and Environmental Sciences, Ottawa, ON 9/2017-present
- Postdoctoral Scholar** – Geology/Geochemistry
University of North Carolina, Geological Sciences, Chapel Hill, NC 1/2016-9/2017
- Earth Scientist** – Hydrocarbon Charge/Petroleum Geochemistry R&D
Chevron Energy Technology Company, Houston, TX 9/2014-1/2016

AWARDS

- **Thomas A. Philpott Excellence of Presentation Award**, 2015, GCAGS Conference, Houston, TX
- **Outstanding PhD Student of the Year**, 2014, Geology and Geophysics, University of Utah

FUNDING

In Review

- NOW-Vidi: “Reconstructing Migrant Life Histories: Migration and Acclimation Processes and Patterns in the Ancient Americas” (\$799,000). Collaborator with Jason Laffoon. Submitted 09/2018
- Academy of Finland Research Grant. “Transdisciplinary Research on Ancient, Contemporary and Emerging Subjects (TRACES)” (\$600,000). Collaborator with Laura Arppe. Submitted 09/2018
- NSERC – Discovery Program. “Investigating climate controls on weathering processes in modern and ancient rivers” (\$352,000). PI. Submitted 11/2018.

Awarded

- **Canada Safety and Security Program – Targeted Investment:** “Multi-isotopes Quantitative Geolocation for CBRNE Material, Defense Research and Development Canada (\$350,000). 2018/10 - 2021/3. PI
- **University of Ottawa – Seed Funding Opportunity:** “Tracking migrating insects using strontium isotopes: A preliminary study using monarch butterflies across the USA” (\$20,000): 2018/07-2019/07. PI
- **ACS-PRF New Directions Grant 2012:** “Linking Coastal Terrestrial Ecosystems and Eustatic Sea-Level Change in a Greenhouse World: A Case Study in the Tornillo Group” (\$100,000). Co-PI with Gabriel Bowen
- Graduate Student Research Grant 2014, University of Utah (\$2,000)
- Graduate Student Research Grant 2012, GSA (\$2,500)
- 2012 Ed Picou Fellowship Grant for Graduate Studies in Earth Science (\$2,000)

PUBLICATIONS

(* denotes advised student author)

In Review

- Colliver, L. Ridgway, K., **Bataille, C.P.**, Kassab, C. Long-Term Record of Sediment Transport and Deposition at the Crossroads of North America’s Orogenic Systems, West Texas, U.S.A.: A Detrital Zircon View. Tectonic.
- Tipple B. J., Valenzuela L. O., Chau T. H., Hu L., **Bataille C. P.**, Chesson L. A., Ehleringer J. R. Strontium isotope ratios of human hair from the United States: Patterns and aberrations. Rapid communication in Mass Spectrometry.
- Fauberteau A.E.*, Chartrand M.G., St-Jean G., **Bataille C.P.** (2018). Using multi-isotope time-series in hair to learn about diet, health and movements of an unidentified human being. Journal of forensics sciences.
- Kramer R.T., Bartelink E.J. Herrmann N., **Bataille C.P.**, Spradley K. (2018). Application of Stable Isotopes and Geostatistics to Infer Region of Geographic Origin for Deceased Undocumented Latin American Migrants. Roberto Parra, Sarah Zapico, and Doug Ubelaker. Humanitarian Forensic Science: Interacting with the Dead and the Living. American Academy of Forensics
- Chesson L.A., Meier-Augenstein W., Berg G.E., Bartelink E.J., **Bataille C.P.**, Richards M. (2018). Basic Principles of Stable Isotope Analysis in Humanitarian Forensic Science. Roberto Parra, Sarah Zapico, and Doug Ubelaker. Humanitarian Forensic Science: Interacting with the Dead and the Living. American Academy of Forensics

Published (* student co-authors; ¹ co-first authors)

17. Moreno-Mayar V. J., Vinner L., de Barros Damgaard P., de la Fuente C., Chan J., Spence J. P., Allentoft M. E., Vimala T., Racimo F., Pinotti T., Rasmussen S., Margaryan A., Orbegozo M. I., Milopotamitaki D., Wooller M., **Bataille C.**, Becerra-Valdivia L., Chivall D., Comeskey D., Devière T., Grayson D. K., George L., Harry H., Alexandersen V., Primeau C., Erlandson J., Rodrigues-Carvalho C., Reis S., Bastos M. Q. R., Cybulski J., Vullo C., Morello F., Vilar M., Wells S., Gregersen K., Hansen K. L., Lynnerup, N. Mirazon Lahr M., Kjær K.,

- Strauss, A., Alfonso-Durruty M., Salas A., Schroeder H., Higham T., Malhi R. S., Rasic J. T., Souza L., Santos F. R., Malaspinas A. S., Sikora M., Nielsen R., Song Y. S., Meltzer D. J., Willerslev E. (2018). Early human dispersals within the Americas. *Science*. DOI: 10.1126/science.aav2621
16. Kelson, J., Watford, D., **Bataille, C.P.**, Huntington K., Hyland, E., Bowen, G. J. Warm terrestrial subtropics during the Paleocene and Eocene: Carbonate clumped isotope ($\Delta 47$) evidence from Tornillo Basin, Texas (USA). *Paleoceanography and Paleoclimatology*
 15. Talavera, G.¹, **Bataille, C.P.**¹, Benyamini, D., Gascoigne-Pees, M., Vila, R. (2018) Round-trip across the Sahara: Afrotropical Painted Lady butterflies recolonize the Mediterranean in early spring. *Biology Letters*. 14(6): 20180274
 14. **Bataille, C.P.**, Colliver, L. Ridgway, K. An early Paleogene shift in fluvial regimes in the subtropics in response to global warming, Tornillo Basin, West Texas. *Geological Society of America Bulletin*
 13. **Bataille C.P.**, von Holstein I.C.C., Laffoon J.E., Willmes M., Liu X-M., Davies G.R., (2018) A bioavailable strontium isoscape for Western Europe: A machine learning approach. *PLoS ONE* 13(5): e0197386.
 12. Wang, X., Yan, S., Ran, X., Liu, X.M., **Bataille, C.P.**, Su N. Response of the Changjiang (Yangtze River) water chemistry to the impoundment of Three Gorges Dam. *Chemical Geology*, 487, 1-11
 11. Willmes, M., **Bataille, C.P.**, James, H., Moffat, I., McMorrow, L., Kinsley, L., Armstrong, R. A. Eggins, S., Grün, R. (2018) Mapping of bioavailable $87\text{Sr}/86\text{Sr}$ isotope ratios in France for archaeological provenance studies. *Applied Geochemistry*, 90, 75-86
 10. **Bataille, C.P.**, Willis, A., Yang, X., Liu, X.-M., (2017). Continental Crust Composition: A Major Control of Past Global Chemical Weathering. *Science Advances* 3 (3), e1602183
 9. **Bataille, C.P.**, Watford, D., Ruegg, S.*, Lowe, A.*, Bowen, G.J., (2016). Chemostratigraphic Age Model for the Tornillo Group: A Possible Link between Fluvial Stratigraphy and Climate. *Paleogeography, Paleoclimatology, Paleocology*, 457, 277-289
 8. Humston, R., Doss, S., Wass, C., Hollenbeck, C.*, Thorrold, S., Smith, S. **Bataille, C.P.**, (2017). Geochemistry reveals ontogeny of dispersal and exchange between mainstem and tributary habitats in smallmouth bass. *Journal of Fish Biology*, 2, 528-548
 7. Crowley, B., Miller, J. **Bataille, C.P.**, (2017) Strontium isotopes ($^{87}\text{Sr}/^{86}\text{Sr}$) in terrestrial ecological and paleoecological research: empirical efforts and recent advances in continental-scale models for the United States. *Biological Reviews*. doi: 10.1111/brv.12217
 6. **Bataille, C.P.**, Brennan, S.R., Hartmann, J., Moosdorf, N., Wooller, M.J., Bowen, G.J., (2014) A geostatistical framework for predicting variations in strontium concentrations and isotope ratios in Alaskan rivers. *Chemical Geology*, 389, 1-15. doi:10.1016/j.chemgeo.2014.08.030
 5. Brennan, S.R., Fernandez, D.P., Mackey, G., Cerling, T.E., **Bataille, C.P.**, Bowen, G.J., Wooller, M.J., (2014) Strontium isotope variation and carbonate versus silicate weathering in rivers from across Alaska: Implications for provenance studies. *Chemical Geology*, 389, 167-181. doi:10.1016/j.chemgeo.2014.08.018
 4. **Bataille, C. P.**, Mastalerz, M., Tipple, B. J. and Bowen, G. J. (2013) Influence of provenance and preservation on the carbon isotope variations of dispersed organic matter in ancient floodplain sediments. *Geochemistry, Geophysics, Geosystems*. 14, 11, 4874-4891. doi: 10.1002/ggge.20294
 3. **Bataille, C.P.**, Laffoon, J., Bowen, G.J, (2012) Mapping multiple source effects on the strontium isotopic signatures of ecosystems from the circum-Caribbean region. *Ecosphere*3: art118. <http://dx.doi.org/10.1890/ES12-00155.1>
 2. **Bataille, C. P.** and Bowen G. J. (2012) Mapping $^{87}\text{Sr}/^{86}\text{Sr}$ variations in bedrock and water for large scale provenance studies. *Chemical Geology*, 304-305, 39-52. doi:10.1016/j.chemgeo.2012.01.028.
 1. Kennedy, C. D., **Bataille, C. P.**, Liu, Z., Ale, S., VanDeVelde, J., Roswell, C. R., Bowling, L. C. and Bowen, G. J. (2012) Dynamics of nitrate and chloride during storm events in agricultural catchments with different subsurface drainage intensity (Indiana, USA). *Journal of Hydrology*, 466-467, 1-10. doi:10.1016/j.hydrol.2012.05.002.

Peer-Reviewed Technical Reports

- **Bataille, C.P.**, Arango, I. (2015) Isotope Anomaly in Shale Gases. Chevron ETC. Technical Report
- **Bataille, C.P.**, Arango, I., Lin, F., Katz, B. (2015) Artificial Maturation of Woodford Shale: Geochemical Comparison of Hydrous Pyrolysis and Fischer Assay. Chevron ETC. Technical Report

- **Bataille, C.P.,** Lin, F., (2013). Geochemical Evaluation of Marcellus Shale: Expected and Unexpected. Chevron ETC. Technical Report

TEACHING EXPERIENCE

Main instructor

University of Ottawa, Earth and Environmental Sciences, Ottawa, ON

- “EVS 1101: Introduction to Environmental Sciences” Annually since 2019
- “EVS 1501: Introduction aux sciences environnementales”

Main instructor

University of Ottawa, Earth and Environmental Sciences, Ottawa, ON

- “GEO 3742: Introduction à l’hydrogéologie” Annually since 2018

Instructor

University of Utah, Geology and Geophysics, Salt Lake City, UT

- “SPATIAL Isotopes in Biogeochemistry & Ecology Course” Annually since 2016

Guest Lecturer

University of Ottawa, Earth and Environmental Sciences, Ottawa, ON

- GEO 5169: “Radioisotope Geochemistry” 10/2017-11/2017

Guest Lecturer

Carleton University, Earth Sciences, Ottawa, ON

- EARTH 4803: “Advanced Isotope Geochemistry” 10/2017-11/2017

Guest Lecturer

University of North Carolina, Geological Sciences, Chapel Hill, NC

- GEOL 580: “Non-traditional Stable Isotopes” 3/2017-5/2017

Guest Lecturer

University of North Carolina, Geological Sciences, Chapel Hill, NC

- GEOL 101: “Introductory Geology” 1/2016-2/2016

Teaching Assistant

University of Utah, Geology and Geophysics, Salt Lake City, UT

- GG 5760: “Stratigraphy and Sedimentary Processes” 8/2013-12/2013

Teaching Assistant

Purdue University, Earth and Atmospheric Sciences, Lafayette, IN

- EAPS 100: “Planet Earth” 8/2010-12/2010
- EAPS 106: “Geosciences in the Cinema” 1/2012-6/2012

Professional Tutor (Part-time position)

Academia Company, Paris, France

- Tutored in Mathematics, Physics, Chemistry and Biology 8/2008-8/2009

GRADUATE MENTORSHIPS

- Alejandro Serna (Visiting PhD student; Universidad de la Plata, 2018)
- Anaëlle Fauberteau (Co-advised MSc.; University of Nantes, 2018)
- Megan Reich (MSc.; University of Ottawa, 2018)
- Myunghak Kang (MSc.; University of Ottawa, 2018)

UNDERGRADUATE MENTORSHIPS

- Callum Blaney (University of Ottawa, 2018)
- Victoria Lee (University of Ottawa, 2018)
- Samantha Zabudsky (University of Ottawa, 2018)
- Francis Rasposo (University of Ottawa, 2018)
- Shufan Li (University of Ottawa, 2018)
- Ethan Dinwiddie (University of North Carolina, 2016-2017)
- Coley Smith (University of North Carolina, 2016-2017)
- Connor Hollenbeck (Washington and Lee, 2015)
- Alex Lowe (University of Utah, 2012-2014)
- Stephen Ruegg (University of Utah, 2012-2014)
- Vishnu Srinivasaraghavan (Purdue University, 2011-2012)

THESIS COMMITTEE

- Alex Lemieux (MSc, University of Ottawa, 2018)
- Meghan Moher (MSc, University of Ottawa, 2018)
- Kevin Britton (MSc, University of Ottawa, 2018)
- Jacob Nunn (MSc, University of Ottawa, 2018)
- Amber Dyck (MSc, University of Ottawa, 2018)
- Matt Brenning (MSc, University of Ottawa, 2018)

PROFESSIONAL EXPERIENCE

Earth Scientist – Chevron Corp., ETC, Hydrocarbon Charge Team, Houston, TX 9/2014-1/2016

- Assisted petroleum exploration by estimating the hydrocarbon charge risk in several sedimentary basins
- Assessed and mapped the presence, distribution and quality of petroleum source rocks using geochemical data
- Contributed to R&D project to characterize the geochemistry of organic material contained and expelled from source rocks during pyrolysis experiments to better predict stages of petroleum generation and maturity parameters evolution in unconventional plays
- Contributed to R&D project aiming at better understand isotopic changes in hydrocarbon gases with increasing maturity

Intern – Chevron Corp., ETC, Hydrocarbon Charge Team, Houston, TX 5/2013-8/2013

- Assessed and mapped the quality and maturity of different lithostratigraphic units of the Marcellus shale gas play
- Assessed the potential of organic petrography and Rock-Eval as thermal maturity parameters for unconventional plays

Research Assistant – Geology/Geochemistry

- University of Utah, Geology and Geophysics, Salt Lake City, UT 8/2012-8/2014

Research Assistant – Geology/Geochemistry

- Purdue University, Earth and Atmospheric Sciences, Lafayette, IN 8/2009-8/2012

Research Assistant – Environmental and Agricultural Sciences

- Purdue University, National Soil Erosion Laboratory, Lafayette, IN 5/2007-8/2007 & 1/2008-6/2008

Intern— E.A.R.L la Butte aux Singes, Amiens, France

9/2006-4/2007

- Managed a team project with 5 student engineers to perform an environmental diagnostic and generate a practical guide for rehabilitating a gravel pit into a natural reservation for migratory ducks

Intern - S.A.R.L en Lance, Verfeil, France

6/2005-10/2005

- Conducted a technical and environmental diagnostic of a farm

CONFERENCES**Session Chair**

- Goldschmidt 2018: “11d: The Long Term Carbon Cycle: Sources, Sinks, and Perturbations”
- GCAGS 2015: “Chemostratigraphy and Paleontology”

Invited Presentations

- **Bataille C.P.**, The Strontium Nose: Tasting Wine and Seawater. University of Ottawa, Biology Seminar. November 2018.
- **Bataille, C.P.**, Can we trace Canadians’ provenance based on their isotopic composition? University of Ottawa, Environmental Sciences Seminar Series. (Canada). November 2018.
- **Bataille, C.P.** (Keynote). Can we trace Canadians’ provenance based on their isotopic composition? ASERC 2018, Ottawa (Canada)
- **Bataille C.P.**, The Strontium Nose: Tasting Bones and Water. University of Alaska Fairbanks, Ocean and Marine Sciences. December 2018.
- **Bataille C.P.**, The Strontium Nose: Tasting Bones, Rivers and Seawater. Dartmouth College, Geological Sciences. March 2017.
- **Bataille C.P.**, The Strontium Nose: Tasting Bones, Rivers and Seawater. University of Ottawa, Geological Sciences. February 2017.
- **Bataille C.P.**, The Strontium Nose: Tasting Wine and Seawater. University of North Carolina, Geological Sciences Seminar. March 2016.

Oral Presentations (Volunteer)

- **Bataille, C.P.**, Xiao-Ming Liu (Invited). Are lithium isotopes good proxies of continental silicate weathering?. Goldschmidt 2017, Paris (France)
- **Bataille, C.P.**, Willis, A., Yang, X., Liu, X.-M. Continental Crust Composition: A Major Control of Past Global Chemical Weathering. Goldschmidt 2017, Paris (France)
- **Bataille, C.P.**, Watford, D., Ruegg, S. *, Lowe, A. *, Bowen, G.J., 2015, Chemostratigraphy-based age model for the Black Peaks Formation: Implications for early Paleogene paleoclimate in sub-tropical North America. GCAGS, Houston (USA)
- **Bataille, C.P.**, Lin, F., Arango, I., Katz, B. Geochemical comparison of fluids generated during hydrous and anhydrous pyrolysis of black shales. Chevron, Houston (USA)

- Watford, D., **Bataille, C.P.**, Ruegg, S.*, Lowe, A.*, Bowen, G.J., 2014 Early Paleogene terrestrial paleoclimate record from the Black Peaks Formation, Big Bend National Park, TX. GSA Annual Meeting 2014, Vancouver (British Columbia)
- **Bataille, C.P.**, Brennan, S.R., Hartmann, J., Moosdorf, N., Wooller, M.J., Bowen, G.J., 2014. A geostatistical framework to predict strontium isotopes variations in bedrock and rivers, Goldschmidt, Sacramento
- **Bataille C.P.**; Bowen G.J, Mastalerz M. Influence of organic provenance and preservation on the carbon isotope variations of dispersed organics in ancient floodplain sediments. GSA Annual Meeting 2013, Denver (Colorado)
- Bowen G.J, **Bataille C.P.**, Kennedy C. Zhang T., West J. Integrating environmental isoscapes for spatiotemporal assignment, EGU 2012, Vienna (Austria)
- **Bataille C.P.**; Bowen G.J, Mapping $^{87}\text{Sr}/^{86}\text{Sr}$ variations in bedrock and Water for provenance studies. GSA Annual Meeting 2011, Minneapolis (Minnesota)

Poster Presentations

- **Bataille, C.P.**, Cao C., Li W., Tierney K., Saltzman M., Liu X.M. (2018). Strontium and Lithium Isotope Variations from Bulk Carbonates across the Permian Period in seawater during the Permian period. Goldschmidt 2018, Boston, USA
- Cao C, Liu XM, **Bataille, C.P.**, Liu C. (2017). A refined dissolution method to extract primary seawater Rare Earth Element signal from ancient marine carbonates. Goldschmidt 2017, Paris, France
- **Bataille, C.P.**, Willis, A., Yang, X., Liu, X.-M. Continental Crust Composition: A Major Control of Past Global Chemical Weathering. AGU 2016, San Francisco.
- **Bataille, C.P.**, Willis, A., Yang, X., Liu, X., 2016, Sensitivity of the Marine Strontium Budget and of the Long Term Carbon Cycle to Young Igneous Rocks Composition. AGU Fall Meeting 2016, San Francisco
- Colliver L., Ridgway K., **Bataille C.P.**, Regional Sediment Provenance and Basin Development along the southern North American continental margin over geologic time scales: Detrital Zircon Geochronology of west Texas
- Ruegg S.*, **Bataille C.P.**, Lowe A.* and Bowen G.J. Environmental and global carbon cycles signals recorded in 6 Million year carbon isotope record from the Paleocene Black Peak Formation, Big Bend National Park. GSA Annual Meeting 2013, Denver, CO
- **Bataille C.P.**, Bowen G.J, Mapping $^{87}\text{Sr}/^{86}\text{Sr}$ Variations in bioavailable Sr for regional provenance studies. Isoecol Meeting 2012, Brest, France
- **Bataille C.P.**; Bowen G.J, Mapping $^{87}\text{Sr}/^{86}\text{Sr}$ Variations in bedrock and water for provenance studies. Isoscape Meeting 2011, Lafayette, IN
- Srinivasaraghavan V.*, Vandavelde J.H., **Bataille C.P.** and Bowen G.J. Vertical and lateral variation of carbonate isotope ratios within paleosol profiles of the Willwood Formation, Wyoming. GSA Annual Meeting 2011, Minneapolis, MN
- **Bataille C.P.**, Bowen G.J, High resolution carbon isotopic variations of bulk organic matter in paleosols. GSA Annual Meeting 2011, Minneapolis, MN
- **Bataille C.P.**, Bowen G.J, A Lithology-based model for $^{87}\text{Sr}/^{86}\text{Sr}$ values of bedrock and water in the conterminous US. AGU Fall Meeting 2010, San Francisco, CA
- **Bataille C.P.**, Huang C.H, Effect of roughness on chemical transfer from soil to surface runoff under surface hydrologic conditions. ASA Annual Meeting 2008, Houston, TX

PROFESSIONAL ACTIVITIES

Proposal Reviews

- *U.S. National Science Foundation (2015)*

Manuscript Reviews

- *Journal of Geophysical Research* (2018)
- *Geosphere* (2018)
- *Hydrological Processes* (2018)
- *Geochemistry, Geophysics, Geosystems* (2017)
- *Open Quaternary* (2017)
- *PNAS* (2017)
- *Rapid Communications in Mass Spectrometry* (2016,2018)
- *Ecological Applications* (2016)
- *Earth and Planetary Sciences* (2016)
- *Geology* (2016)
- *Gondwana Research* (2016)
- *Paleogeography, Paleoclimatology Paleoecology* (2016)
- *Marine and Petroleum Geology* (2015)
- *Chemical Geology* (2013, 2014, 2015, 2016, 2018)
- *Geochimica et Cosmochimica Acta* (2015)
- *Applied Geochemistry* (2014, 2015,2017)
- *Isotopes in Environmental & Health Studies* (2014)

PROFESSIONAL MEMBERSHIPS

- Geological Society of America
- American Geophysical Union
- Gulf Coast Association of Geological Societies
- Geochemical Society

MEDIA/SCIENCE NEWS COVERAGE

- CBC Ottawa morning: Painted Lady Butterflies, Ottawa morning, CBC, Robyn Bresnahan: <http://www.cbc.ca/listen/shows/ottawa-morning/segment/15550889>
- Les prouesses migratoires de la belle-dame, Daniel Blanchette, Les prouesses migratoires de la belle-dame <https://ici.radio-canada.ca/nouvelle/1108343/migration-papillon-belle-dame-vanessechardons-europe-a>
- Each year painted lady butterflies cross the Sahara — and then go back again, Leah Rosenbaum, Science News: <https://www.sciencenews.org/article/painted-lady-butterflies-migration-sahara-africa>
- Move over Monarch: The Painted Lady is the world's most rugged butterfly, Ephrat Livni, Quartz: <https://qz.com/1305494/the-painted-lady-is-the-toughest-migrating-butterfly-not-themonarch/>
- TV show radio canada: "Enquete" <https://ici.radio-canada.ca/tele/enquete/site>
- Canadian Federation of Earth Sciences: <https://www.cfes-fcst.ca/single-post/2017/05/18/Early-career-Geoscientist-Clément-Bataille>
- University of Cincinnati news: <http://www.uc.edu/news/NR.aspx?id=2221>
- EarthChem featured dataset of the month: <http://www.earthchem.org/featured/bataille>

LANGUAGES & TECHNICAL SKILLS

Languages: French (native), English (fluent), Spanish (fluent)

Software: Programming (Matlab, VBA), Database (Access), OS (UNIX), Geostatistics/statistics (R, SGems), GIS (ArcGIS, Surfer), Remote sensing (ENVI), Climate code (CCSM4), Chemistry code (PhreeQc, The Geochemist's Workbench), Hydrology code (HEC-HMS), GCMS trace interpretation (Malcom, ChromEdge), Climate models (Merlin, Gandolf, GeTech, Gplates), Geochemical database (Robertson/Frogi, Neflex, RFDbase, RAPID, EGI), Basin modeling (Trinity, PetroMod)

Analytical: Isotope Mass Spectrometry (TC/EA-IRMS, ICP-MS, GC-MS), Ion Chromatography, Organic Petrography, Rock-Eval, FTIR and IR-Spectrometry, XRD, XRF
