

Zachary A Sylvain

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RESEARCH INTERESTS

Soil animal ecology, aboveground-belowground interactions, biodiversity and ecosystem functioning, global change ecology

EDUCATION

PhD (Ecology) – Colorado State University, Fort Collins, CO, Diana Wall, Advisor, 2013
MSc (Entomology) – McGill University, Montreal, QC, Canada, Chris Buddle, Advisor, 2008
BSc (Biology) – McGill University, Montreal, QC, Canada, 2004

PROFESSIONAL EXPERIENCE

Postdoctoral Researcher – Department of Biology, Colorado State University, Fort Collins, CO, USA (2013 – present)
Graduate Research Assistant – Department of Biology, Colorado State University, Fort Collins, CO, USA (2010 – 2013)
Field Researcher – US Antarctic Program, McMurdo LTER – 3 field seasons (2009-2012)
Lab instructor – Attributes of living systems (LIFE 102), Colorado State University (2009)
Nematodes in Environmental Studies/Identification Course – Wageningen University, Wageningen, the Netherlands (2009)
Lab instructor – Biology of Organisms – Animals and Plants, Colorado State University (2008 – 2009)
Research Assistant – McGill University, Montreal, QC, Canada (2005)
Soil Acarology Summer Program – Ohio State University, Columbus, OH, USA (2004)

SOCIETY MEMBERSHIP

American Association for the Advancement of Science
Ecological Society of America
Soil Ecology Society

HONORS

Travel Award, Colorado State University Graduate Degree Program in Ecology (2013)
Travel Award, Colorado State University Department of Biology (2011)
Environmental Communication Fellow, COMPASS Communications Workshop (2011)
Travel Award, Colorado State University Department of Biology (2009)
Parkinson Award for Student Travel, Soil Ecology Society (2009)
President's Prize, best student presentation, Entomological Society of Canada (2007)

REVIEWER

Applied Soil Ecology, Canadian Field Naturalist, Canadian Journal of Forest Research, Ecology, Plant and Soil, Polar Biology

PUBLICATIONS

Cotrufo, MF, Nguyen, T, Soong, J, Vandegehuchte, ML, Deneff, K, Nielsen, UN, Shaw, EA, **Sylvain**, ZA, de Tomasel, CM, and Wall, DH. Naphthalene addition to soil surfaces: An effective method to suppress soil micro-arthropods with negligible direct effects on soil C dynamics. *Submitted to **Applied Soil Ecology***

Sylvain, ZA and Wall, DH. (2011) Linking soil biodiversity and vegetation: Implications for a changing planet. ***American Journal of Botany*** 98, 517-527

Sylvain, ZA and Buddle, CM. (2010) Effects of forest stand type on oribatid mite (Acari: Oribatida) assemblages in a southwestern Quebec forest. ***Pedobiologia*** 53, 321-325

Saint-Germain, M, Buddle, CM, Larrivée, M, Mercado, A, Motchula, T, Reichert, E, Sackett, TE, **Sylvain**, Z and Webb, A. (2007) Should biomass be considered as a currency in terrestrial arthropod community analyses? ***Journal of Applied Ecology*** 44, 330-339

PRESENTATIONS AND POSTERS

Sylvain, ZA, Wall, DH, Cherwin, KL, Peters, DPC, Reichmann, LG and Sala, OE (2013) Influence of soil moisture availability on soil animal communities along a cross-site climate gradient (Soil Ecology Society, Camden, New Jersey, United States)

Sylvain, ZA, Wall, DH, Cherwin, KL, Peters, DPC, Sala, OE and Reichmann, LG (2012) Soil animal community structuring along an LTER cross-site moisture gradient (Long-Term Ecological Research All Scientists Meeting, Estes Park, Colorado, United States)

Sylvain, ZA, Wall, DH, Cherwin, KL, Peters, DPC, Sala, OE and Reichmann, LG (2012) Patterns of soil community structure differ by scale and ecosystem type along a large-scale precipitation gradient (Ecological Society of America, Portland, Oregon, United States)

Vandegehuchte, ML, Nielsen, UN, Shaw, EA, Soong, JL, **Sylvain**, ZA, Tomasel, CM, Cotrufo, MF and Wall, DH (2012) Variation in abundance of soil fauna trophic groups with depth, season and litter quality: Implications for the study of decomposition (Ecological Society of America, Portland, Oregon, United States)

Sylvain, ZA (2011) Climate change and soil animals: What very large changes on very small organisms can tell us about the future of Antarctica (Fort Collins Public Library, Fort Collins, Colorado, United States)

Sylvain, ZA and Wall, DH (2011) Scale-dependent responses of soil invertebrate communities to altered soil moisture regimes across a regional precipitation gradient (Ecological Society of America, Austin, Texas, United States)

Sylvain, ZA and Wall, DH (2011) Effects of soil moisture on nematode assemblages (Front Range Student Ecology Symposium, Fort Collins, Colorado, United States)

Sylvain, ZA and Wall, DH (2010) Effects of soil moisture on soil invertebrate assemblages (Ecological Society of America, Pittsburgh, Pennsylvania, United States)

Sylvain, ZA and Buddle, CM (2009) The effects of habitat type in structuring assemblages of oribatid mites (Soil Ecology Society, Burlington, Vermont, United States)

Dechene, A, Buddle, CM and **Sylvain**, ZA (2008) Recent work on Oribatid mites in Quebec forests (Entomological Society of Canada, Ottawa, Canada)

Sylvain Z, Buddle CM (2007) Spatial distribution of oribatid mites (Acari: Oribatida) assemblages in a southern Quebec forest (Entomological Society of Canada, Saskatoon, Canada)

Sylvain Z, Buddle CM (2006) Effects of stand type on Oribatid mite assemblages in southern Quebec (Entomological Society of Canada, Montreal, Canada)

INVITED PARTICIPANT and OTHER MEETINGS ATTENDED

Invited Participant, McMurdo LTER Science Meeting, Boulder, CO, United States (2011)
Grasslands in a Global Context: An anniversary symposium celebrating the Konza Prairie Biological Station and LTER program, Manhattan, KS, United States (2011)

Invited Participant, McMurdo LTER Science Meeting, Fort Collins, CO, United States (2010)

Long-term Ecological Research All-Scientist Meeting, Estes Park, CO, United States (2009)

REFERENCES

Diana H Wall, Professor and Director
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Byron J Adams, Associate Professor
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Additional references available on request