**Jennie R. McLaren**

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**Professional Experience**

Assistant Professor, 2014- , Department of Biological Sciences, University of Texas at El Paso

Post-doctoral Scientist, 2012-2013, University of British Columbia (Supervisor: Dr. Roy Turkington)

Post-doctoral Scientist, 2010-2012, University of Texas at Arlington (Supervisor: Dr. Laura Gough)

**Education**

Ph. D. Botany, 2010, University of British Columbia (Supervisor: Dr. Roy Turkington)

Thesis: *The influence of plant functional groups on ecosystem function in a grassland in northern Canada*

M.Sc. Botany, 2003, University of Toronto (Supervisor: Dr. Robert Jefferies)

Thesis: *Vegetation mosaics, patch dynamics and alternate stable states in an Arctic intertidal marsh*

B.Sc. Biology (High Honours) 2000, University of Regina (Supervisor: Dr. Scott Wilson)

Thesis: *Plant-driven temporal variability of soil moisture*

**Publications**

**\*** Denotes Undergraduate Student ‡Denotes Graduate Student

19. JR McLaren, A Darrouzet-Nardi, MN Weintraub and L Gough. Seasonal patterns of nitrogen availability in moist acidic tundra. *Arctic Science* doi: 10.1139/AS-2017-0014

18. A Asmus‡, A Koltz‡, JR McLaren, G Shaver and L Gough. Long-term nutrient addition alters arthropod community structure and seasonality in arctic tundra. *Oikos* (*In Press*)

17. KR Wilcox, AT Tredennick, SE Koerner, E Grman, LM Hallett, ML Avolio, KJ La Pierre, GR Houseman, F Isbell, DS Johnson, JM Alatalo, AH Baldwin, E Bork, EH Boughton, WD Bowman, A Britton, JF Cahill Jr., SL Collins, G Du, A Eskelinen, L Gough, A Jentsch, C Kern, K Klanderud, AK Knapp, J Kreyling, Y Luo, JR McLaren, P Megonigal, V Onipchenko, J Prevey, J Price, CH Robinson, O Sala, M Smith, NA Soudzilovskaia, L Souza, D Tilman, SR White, Z Xu, L Yahdjian, Q Yu, Y Zhang. Asynchrony among local communities stabilizes ecosystem function of metacommunities. *Ecology Letters* (*In Press*).

16. ARE Sinclair, R Pech, JM Fryxell, K McCann, A Byrom, CJ Savory, J Brashares, AD Arthur, PC Catling, MD Triska, MD Criag, TJE Sinclair, JR McLaren, R Turkington, WL Harrower. Predicting and assessing progress in the restoration of ecosystems. *Conservation Letters* doi:10.1111/conl.12390

15. JR McLaren, KM Buckeridge, MJ van de Weg, GR Shaver, JP Schimel and L Gough (2017) Shrub encroachment in Arctic tundra: *Betula nana* effects on above- and below-ground litter decomposition. *Ecology* 98:1361-1376

14. JR McLaren, A Novoplansky, R Turkington. (2016) Few effects of plant functional group identity on ecosystem properties in an annual desert community. *Plant Ecology* DOI 10.1007/s11258-016-0660-3

13. Gough L, H Bass\* and JR McLaren (2015)Effects of increased soil nutrients on seed rain: a role for seed dispersal in the greening of the Arctic? *Arctic, Antarctic and Alpine Research* 47:27-34.

12. McLaren JR (2014) Diversity in the afterlife. (News & Views) *Nature* 509: 173-174 doi:10.1038/nature13329

11. Turkington R, JR McLaren and M Dale (2014) Determinants of herbaceous community structure and function in the Kluane region. *Arctic* <http://dx.doi.org/10.14430/arctic4351>

10. Boelman NT, L Gough, JR McLaren and H Greaves (2011) Does NDVI reflect variation in the structural attributes associated with increasing shrub dominance in arctic tundra? *Environmental Research Letters* 6:035501

9. McLaren JR and R Turkington (2011) Plant identity influences decomposition through more than one mechanism. *PLOS One* 6(8): e23702. doi:10.1371/journal.pone.0023702

8. Fremlin KM\*, JR McLaren, L DeSandoli and R Turkington (2011) The effects of fertilization and herbivory on the phenology of the understory vegetation of the boreal forest in north-western Canada. *Arctic, Antarctic and Alpine Research* 43: 389-396.

7. McLaren JR and R Turkington (2011) Biomass compensation and plant responses to 7-years of plant functional group removals. *Journal of Vegetation Science* 22: 503-515.

6. Marshall CB‡, JR McLaren and R Turkington (2011) Soil microbial communities resistant to changes in plant community composition. *Soil Biology and Biochemistry* 43:78-85

5.McLaren JR and R Turkington (2010) Plant functional group identity differentially affects leaf and root decomposition. *Global Change Biology* 16(11):3075-3084

4. McLaren JR and R Turkington (2010) Ecosystem properties determined by plant functional group identity. *Journal of Ecology* 98(2): 459-469

3. McLaren JR (2004) Effects of plant functional groups on vegetation dynamics and ecosystem properties. *Arctic* 59:449-452 (Invited)

2. McLaren JR and RL Jefferies (2004) Initiation and maintenance of vegetation mosaics in an Arctic salt marsh. *Journal of Ecology* 92(4): 648-660.

1. McLaren JR, SD Wilson and DA Peltzer (2004) Plant feedbacks increase the temporal heterogeneity of soil moisture. *Oikos* 107(1): 199-205.

### Peer-Reviewed Book Chapters

4. McLaren JR and R Turkington (2013) Boreal forest ecosystems. *In* S. Levin, ed. Encyclopedia of Biodiversity 2nd Edition. Elsevier Press, Oxford.

3. Duffy JE, DS Srivastava, JR McLaren, M Sankaran, M Solan, J Griffin, M Emmerson, KE Jones (2009) Forecasting decline in ecosystem services under realistic scenarios of extinction. *In* Naeem S, DE Bunker, A Hector, M Loreau and C Perrings, editors. Biodiversity, Ecosystem Functioning, and Human Wellbeing: An Ecological and Economic Perspective. Oxford University Press, Oxford.

2. Hector A, T Bell, J Connolly, J Finn, J Fox, L Kirwan, M Loreau, JR McLaren, B Schmid, A Weigelt (2009) The analysis of biodiversity experiments: From pattern toward mechanism. *In* Naeem S, DE Bunker, A Hector, M Loreau and C Perrings, editors. Biodiversity, Ecosystem Functioning, and Human Wellbeing: An Ecological and Economic Perspective. Oxford University Press, Oxford.

1. Bell T, MO Gessner, RI Griffiths, JR McLaren, PJ Morin, M van der Heijden, W van der Putten (2009) Microbial biodiversity and ecosystem functioning under controlled conditions and in the wild. *In* Naeem S, DE Bunker, A Hector, M Loreau and C Perrings, editors. Biodiversity, Ecosystem Functioning, and Human Wellbeing: An Ecological and Economic Perspective. Oxford University Press, Oxford.

**Submitted Manuscripts**

**\*** Denotes Undergraduate Student ‡Denotes Graduate Student

1. JR McLaren and KM Buckeridge. The importance of phosphorus versus nitrogen in Alaskan tundra: above- and belowground response to multi-decadal nutrient amendments in two ecosystems. Submitted to *Journal of Ecology* (June 2017).

2. AL Crofts\*, DO Drury\* and JR McLaren. Changes in the understory plant community and ecosystem properties along a shrub density gradient. Submitted to *Arctic Science* (June 2017)

4. B Kumordzi, I Aubin, B Shipley, C Violle, J Johnstone, F Cardou, M Anand, A Arseneault, W Bell, Y Bergeron, M Brosseau, L de Grandpré, S Delagrange, N Fenton, D Gravel, ES MacDonalt, B Hamel, M Higelin, F Hébert, N Isabel, A Malik, A McIntosh, JR McLaren, C Messier, D Morris, N Thiffault, JP Tremblay and AD Munson. Intraspecific variability in leaf and root traits of understory North American plants is influenced by sampling scale and disturbance. In Revision for *Functional Ecology* (September 2017).

**Research Grants and Awards**

**Research Grants**

2017 “Critical Loads of N deposition in grasslands at Carlsbad Caverns National Park”, National Park Service – Air Resources Division, $89,953, PI: JR McLaren 8/2017 – 7/2020

2016 "Collaborative Research: Adding animals to the equation: linking observational, experimental and modeling approaches to assess herbivore impacts on carbon cycling in northern Alaska", National Science Foundation, Polar Programs, Arctic System Science, $621,488, PI: JR McLaren ($2.7 Million Collaborative grant to N Boelman, K Griffin (Columbia University), L Gough (Towson University), E Rastetter (Marine Biological Laboratory), R Rowe (University of New Hampshire)), 10/2016 - 9/2021

2014 "Herbivore-mediated effects on nutrient cycling in arctic tundra ecosystems", UTEP University Research Incentive Program, $5000, PI: JR McLaren, 9/2014 - 8/2015

2014 "Revitalizing the UTEP Green Roof and Research Platform", UTEP Green Fund, $53,500, PI: V Lougheed, Co-PIs: JR McLaren, C Tweedie, 9/2015 - 8/2016

2012 "Long-term effects of plant functional group identity on ecosystem properties in a northern Canadian grassland", British Ecological Society Small-Projects-Grant, $2500 5/2012 - 4/2013

2012 "Long-term effects of plant functional group identity on ecosystem properties in a northern Canadian grassland, Arctic Institute of America Grant-in-Aid, $1000, 5/2012 - 4/2013

2007 "Effects of plant functional groups on vegetation dynamics and ecosystem properties", Arctic Institute of America Grant-in-Aid, $1000, 5/2007 - 4/2008

2006 "Effects of plant functional groups on vegetation dynamics and ecosystem properties", Yukon College Northern Exploration fund, $1500, 5/2006 - 4/2007

2005 "Plant functional group effects on ecosystems", Sigma Xi Grant-in-Aid, $1200, 5/2005 - 4/2006

2004 "Effects of plant functional groups on ecosystem properties", Mountain Equipment Co-op Environment Fund, $9,650, 5/2004 - 4/2005

2001-5 Northern Scientific Training Program (5 awards totalling $14,300)

**Awards**

**University of Texas at Arlington**

2012 International Arctic Research Center Travel Grant, $1000

2011 University Sustainability Committee Travel Grant, $500

**University of British Columbia**

2004 Izaak Walton Killam Memorial Doctoral Fellowship, $50,000 (2004-2006)

2003 NSERC Post-Graduate Scholarship B, $42,000 (2003-2004)

2003 4 additional awards totalling $21,900 (2003-2007)

**University of Toronto**

2000 NSERC Post-Graduate Scholarship A, $34,600 (2000-2002)

**University of Regina**

2000 NSERC Undergraduate Research Award, $5800

1999 NSERC Undergraduate Research Award, $5800

1996 7 additional awards totalling $19,700 (1996-2000)

**Presentations**

### Invited Seminars

17. Shrubs, Climate Change and the Arctic Carbon Balance, Connecticut Agricultural Experiment Station, New Haven CT (2017)

16. Broadening perspectives on the controls over carbon and nutrient cycling, Toolik All Scientists Meeting, Portland OR (2017)

15. The Greening of the Arctic, University of California at Irvine, Department of Earth System Science (2016)

14. How shrubs are changing the arctic tundra, Pennsylvania State University, Polar Center (2015)

13. The Greening of the Arctic, University of Texas at Arlington, Department of Biology (2015)

12. The influence of plant identity in a changing Arctic, University of Texas at El Paso, EEB Seminar Series (2014)

11. Effects of increasing shrub abundance in the arctic tundra, New Mexico State University, Department of Biology (2014)

10. The greening of the arctic: how shrubs are changing the tundra, University of British Columbia, Biodiversity Research Centre (2013)

9. The influence of plant identity on ecosystem properties in a changing Arctic, Mississippi State University, Department of Biological Sciences (2013)

8. The influence of plant identity on ecosystem properties in a changing Arctic, University of Texas at El Paso, Department of Biological Sciences (2013)

7. Plant communities and ecosystem function in a changing Arctic, University of California Santa Barbara, Department of Ecology Evolution and Marine Biology (2012)

6. Effects of changing plant communities on arctic and sub-arctic ecosystems, University of Alaska Fairbanks, Institute for Arctic Biology (2012)

5. Plant communities and ecosystem function in arctic and sub-arctic ecosystems, North Dakota State University, Department of Biology (2012)

4. The effects of plant identity on ecosystem function in a northern Canadian grassland. University of Texas at Arlington, Department of Biology (2011)

3. Different plants do different things: The effects of plant identity on ecosystem functioning. University of British Columbia, Department of Botany (2008)

2. Collapse of a Canadian Arctic salt marsh: Effects and implications of lesser snow goose population increases. Ben Gurion University of the Negev, Israel (2004)

1. Vegetation collapse in an Arctic salt marsh: Effects of lesser snow goose population increases in the Hudson Bay lowlands. University of British Columbia, Department of Forestry (2003)

**Contributed Presentations and Posters**

**\*** Denotes Undergraduate Student ‡Denotes Graduate Student

53. JR McLaren and KM Buckeridge (2017) The importance of nitrogen versus phosphorus in Alaskan tundra: Above- and belowground response to multi-decadal nutrient amendments in two ecosystems. Ecological Society of America 102nd Annual Meeting, Portland, OR. (Invited)

52. A Darrouzet-Nardi, D Aguirre\*, J Martinez‡, JR McLaren, C Tweedie. (2017) Association of exoenzyme activities with larger solid components of tundra soil. Ecological Society of America 102nd Annual Meeting, Portland, OR.

51. A Asmus‡, A Koltz, JR McLaren, G Shaver, L Gough (2017) Bottom-up effects of experimental nutrient addition on arthropod assemblages in arctic tundra mediated by plant traits. Ecological Society of America 102nd Annual Meeting, Portland OR. (Invited)

50. M Zaret\*, K Schaeffer‡ and JR McLaren (2017) Effects of shrub removal on soil carbon during grassland restoration in New Mexico. COURI Summer Symposium, El Paso Tx (Poster).

49. I Aubin, BB Kumordzi, F Cardou, B Shipley, C Violle, J Johnstone, M Ananad, A Arseneault, W Bell, Y Bergeron, M Brousseau, L de Grandpré, S Delagrange, N Fenton, D Gravel, ES MacDonald, B Hamel, M Higelin, F Hébert, N Isabel, A Mallik, A McIntosh, JR McLaren, C Messier, D Morris, N Thiffault, J Tremblay, I Boulangeatand AD Munson (2017) Collaborative science to investigate above- and belowground intraspecific trait variability at continental scale. New Phytologist Symposium, Exeter England.

48. Darrouzet-Nardi A, JR McLaren, K Roman\*, E Keats\* and C Tweedie (2017) Stable microbial biomass and soil hydrolytic enzyme potential despite dynamic carbon exchange during summer in a Chihuahuan desert shrubland. Arlington meeting for Critical Zone Science, Arlington VA.

47. Pena, S\*, A Benhumea‡ and JR McLaren (2017) Effects on increasing deciduous shrub litter on soil biogeochemistry. COURI Spring Symposium, El Paso Tx (Poster).

46. Asmus A‡, A Koltz, JR McLaren, G Shaver and L Gough (2016) Disparate responses of plant and arthropod communities to long-term nutrient addition in arctic tundra. Aarhus Network for Arthropods of the Tundra Meeting, Aarhus Denmark.

45. Soto X\*, S Cooks\*, A Darrouzet-Nardi and JR McLaren (2016) Soil analysis on desert ecosystems of New Mexico. COURI Summer Symposium, El Paso, Tx (Poster)

44. Cooks S\*, X Soto\*, JR McLaren and A Darrouzet Nardi (2016) What soil properties drive grassland recovery in dryland areas after shrub removal. COURI Summer Symposium, El Paso, Tx (Poster)

43. Morrow D\* and JR McLaren (2016) Do voles affect carbon and nutrient cycling in arctic tundra? COURI Spring Symposium, El Paso, Tx (Poster)

42. Aguirre D\* and JR McLaren (2016) Seasonality of phosphorus availability in arctic tundra soils. COURI Spring Symposium, El Paso, Tx (Poster)

41. Alfaro J\* and JR McLaren (2016) Vole effects on soil nutrient availability in Alaskan tundra. COURI Spring Symposium, El Paso, Tx (Poster)

40. Del Val L\* and JR McLaren (2016) Vole presence and microbial exoenzyme activity in the Toolik Region of Alaska. COURI Symposium, El Paso, Tx. (Best Poster Award, Environmental Science)

39. Asmus A‡, A Koltz‡, J McLaren, G Shaver and L Gough (2015) Underlying seasonal shifts determine the effect of long-term nutrient addition on arctic tundra arthropod communities. LTER All Scientists Meeting, Estes Park, CO.

38. McLaren JR, P deKoning‡ and R Turkington (2015) Long-term effects of fertilization and herbivory on the boreal forest understory: Results of a 20-year experiment. Ecological Society of America 100th Annual Meeting, Baltimore, MD. (Invited)

37. Boleman N, L Gough, JR McLaren, R Rowe, K Griffin and E Rastetter (2015) Adding animals to the equation: trophic interactions mediate carbon cycling in arctic tundra. Ecological Society of America 100th Annual Meeting, Baltimore, MD.

36. Keats\* E, K Roman\*, JR McLaren, A Darrouzet-Nardi (2015) Effects of shrub species on soil nutrient availability in the Jornada Experimental Range. COURI Summer Symposium, El Paso, TX (Poster)

35. Roman K\*, E Keats\*, A Darrouzet-Nardi, JR McLaren (2015) Influence of dominant shrub species on exoenzyme activity in a desert shrubland. COURI Summer Symposium, El Paso, TX (Poster)

34. van de Weg M, JR McLaren, K Buckeridge, L Gough, J Schimel and G Shaver (2015) Shrub encroachment in Arctic tundra peatlands: Betula nana effects on above- and below-ground litter decomposition. European Geosciences Union, Vienna, Austria.

33. van de Weg, M., McLaren, J. R., Buckeridge, K., Gough, L., Schimel, J., Shaver, G., British Ecological Society Annual Meeting, "Litter mixing alters predicted decomposition: Betula nana effects on above- and below-ground litter decomposition in Arctic tundra," Edinburgh, UK. (December 2015).

32. McLaren JR and L Gough (2014) Effects of increasing shrub abundance on litter production and decomposition in arctic tundra. Ecological Society of America 99th Annual Meeting, Sacramento, CA.

31. A Ford\*, J Penna-Avila\*, E Stunz, M Moody and J McLaren (2014) Effect of salt cedar vigor on soil properties in Big Bend National Park. COURI Summer Symposium, El Paso, TX. (Poster)

30. J Penna-Avila\*, E Stunz\*, A Ford\*, J McLaren and M Moody (2014) Invasive Salt cedar under the effect of a biocontrol agent. COURI Summer Symposium, El Paso, TX. (Poster)

29. E Stunz\*, J Penna-Avila\*, A Ford\*, J McLaren and M Moody (2014) Correlation of genotypes to plant resistance to a biocontrol agent. COURI Summer Symposium, El Paso, TX. (Poster)

28. Turkington R and JR McLaren (2014) Herbaceous community structure and function in northern Canada; the value of long-term experimental plots. Annual Symposium of the International Association for Vegetation Science, Perth, Australia.

27. Turkington R and JR McLaren (2014) Importance of long term research in ecology. Canadian Botanical Association Annual Meeting, Montreal, QC.

26. Hobbie E, R Simpson, J McLaren, J Chen, L Gough, J Moore and G Shaver (2014) Isotopic evidence for effects of six years of fertilization on C and N cycling in moist acidic tundra. Arctic LTER annual meeting, Woods Hole, MA (Poster)

25. McLaren JR, MJ van de Weg, L Gough and GR Shaver (2013) Increasing shrub abundance and N addition in Arctic tundra affect leaf and root litter decomposition differently. American Geophysical Union Annual Meeting, San Francisco, CA.

24. McLaren JR, MJ van de Weg, L Gough and GR Shaver (2013) Increasing shrub abundance effects on leaf and root litter decomposition in arctic tundra. Ecological Society of America 98th Annual Meeting, Minneapolis, MN.

23. Buckeridge KM, JR McLaren, MJ van de Weg, L Gough, GR Shaver and JP Schimel (2013) The impact of shrub encroachment and litter mixing on microbial exoenzyme activity. Ecological Society of America 98th Annual Meeting, Minneapolis, MN.

22. McLaren JR, L Gough and M Weintraub (2012) Consequences of long-term fertilization on seasonal patterns in soil nitrogen availability. ArcticNET All Scientists Meeting, Vancouver, BC.

21. McLaren JR, L Gough and M Weintraub (2012) Seasonal variation in nitrogen availability across a fertilization chronosequence. American Geophysical Union Annual Meeting, San Francisco, CA.

20. Bass H\*, JR McLaren and L Gough (2012) Seed dispersal in Alaskan tundra and its role in the greening of the Arctic. UTA Undergraduate Research Symposium, Arlington, TX

19. McLaren JR and L Gough (2012) Seasonal variation in ecosystem properties in moist acidic tundra. Ecological Society of America 97th Annual Meeting, Portland, OR.

18. McLaren JR and L Gough (2012) Shrub abundance and seasonal variation in ecosystem properties across a fertilization chronosequence. International Polar Year, Montreal, QC (Poster)

17. McLaren JR and L Gough (2012) Shrub abundance and seasonal variation in ecosystem properties across a fertilization chronosequence. Arctic LTER annual meeting, Woods Hole, MA (Poster)

16. Hendrix C\*, L Gough, JR McLaren and M Rich (2012) Immediate effects of accelerated snowmelt on arctic arthropod communities. ACES Symposium, Arlington, TX (Poster)

15. McLaren JR, A Novoplansky and R Turkington (2011) The influence of functional group identity in the Negev desert, Israel. Ecological Society of America 96th Annual Meeting, Austin, TX.

14. McLaren JR, CB Marshall‡ and R Turkington (2009) Plant identity determines ecosystem processes in a northern grassland. INTECOL, Brisbane, Australia

13. McLaren JR (2008) Effects of plant functional group loss on soil properties in a northern grassland. Ecological Society of America 93nd Annual Meeting, Milwaukee, WI.

12. McLaren JR (2007) Ecosystem Functioning Determined by Plant Functional Group Composition. Ecological Society of America 92nd Annual Meeting, San Jose, CA.

11. McLaren JR (2006) Effects of Plant Functional Group Identity on Ecosystem Processes. Ecological Society of America 91st Annual Meeting, Memphis, TN

10. McLaren JR (2004) Effects of plant functional group identity on vegetation dynamics and ecosystem function. Botany Graduate Students Symposium, University of British Columbia

9. McLaren JR (2003) Soil degradation and plant re-establishment: Patch dynamics in an Arctic marsh. 24th Annual Pacific Ecology Conference, Bamfield, BC

8. McLaren JR (2002) Vegetation patterns and patch dynamics in an Arctic intertidal marsh. Botany Graduate Students Association seminar series, University of Toronto, ON.

7. McLaren JR, RL Jefferies and PM Kotanen (2002) Soil degradation and plant re-establishment in coastal salt-marshes. Ecological Society of America 87th Annual Meeting, Tucson, AZ.

6. McLaren JR (2002). Soil degradation and plant re-establishment in coastal arctic salt-marshes of the Hudson Bay. Ontario Ecology and Ethology Conference, Queen’s University, ON

5. McLaren JR, SD Wilson and DA Peltzer (2001) Plant-driven temporal variability of soil moisture. Ecological Society of America 86th Annual Meeting, Madison, WI.

4. McLaren JR, SD Wilson and DA Peltzer (2001) Plant-driven temporal variability of soil moisture. Ontario Ecology and Ethology Conference, University of Guelph, ON

3. McLaren JR (2001) Soil degradation by lesser snow geese in the coastal salt-marshes of Manitoba and Nunavut. Arctic Working Group Symposium, University of Toronto, ON

2. McLaren JR, SD Wilson and DA Peltzer (2000) Plant-driven temporal variability of soil moisture. Botany Graduate Students Association seminars, University of Toronto, ON.

1. McLaren JR (2000) Growth form effects on the temporal heterogeneity of soil moisture. Prairie University Biology Symposium, University of Regina, SK

**Teaching Experience**

**Primary Lecturer**

Advances in Ecological Theory (Graduate, UTEP) 2016

Plant Ecology (Undergraduate, UTEP) 2014, 2016, 2017

Introductory Ecology (Undergraduate, UTEP) 2014-2017

**Teaching Assistant**

Community and Ecosystem Biology (University of British Columbia) 2003-2009

Population Biology (University of British Columbia) 2003-2009

Plant Ecology (University of British Columbia) 2008

Environmental Biology (University of Toronto) 2000-2002

Arctic Ecosystems Field Course (University of Toronto) 2001

Human Biology (University of Regina) 1999-2000

Introductory Biology (University of Regina) 1999

**Guest Lecturer**

Ecosystem Ecology (UTEP) 2016, 2017

Soil Ecology (UTEP) 2015-2016

Hot-Topics in Environmental Science (UTEP) 2014-2017

Professional Development (co-taught, University of Texas at Arlington) 2012

Non-majors Introductory Biology (University of Texas at Arlington) 2012

Wetland Ecology (University of Texas at Arlington) 2012

Plant Ecology (University of Texas Arlington) 2011

Plant Ecology (UBC) 2009

Field Course in Ecology (UBC) 2007

Field Biology of the Alaska Inside Passage (University of Alaska) 2004, 2005

Northern Canada Plant Identification (University of Regina) 2004

Environmental Sciences Research Methods (UBC) 2004

**Mentoring/ Supervisory Experience**

*PhD Advisor:* Austin Roy 2017-

Kathleen Schaeffer 2017-

*MSc Advisor*: Daniela Aguirre 2017-

Alejandro Benhumea 2015-

Caroline Marshall (co-Advisor, UBC) 2007-2008

*Undergraduate Research Advisor*:

UTEP: Jaqueline Alfaro, Hector Apodaca, Luis Del Val, Jessica 2017

Duran, Katia Gonzales, Vanessa Gonzales, Jennifer

Holquin, Max Zaret (REU)

 Monica Amaton, Shyla Cooks (REU), Cristian Gonzales, 2016

 Adam Lares, Jacqueline Mackenize, Samantha Pena,

 Scott Reza, Kathleen Schaeffer, Isaac Silvestre,

 Xavier Soto (REU)

 Daniel Morrow, Daniella Aguirre, Jacqueline Alfaro 2015

 Luis Del Val, Kathleen Roman (REU), Eleanor Keats (REU),

 Mayra Melendez, Allison Nawman, Anna Crofts

 Alexandra Ford (REU), Dennise Drury 2014

UTA: Heather Bass, Christopher Hendrix 2011-2012

UBC: Kate Fremlin, Crystal Cerny, Iona To 2003-2007

*Advisory Committee Member*:

MSc: Naomi Luna (UTEP), Kevin Lerer (UTEP), Sara Baqla (UTEP), Grace Craine (UTEP)

PhD: Laura Ladwig (UNM), Michelle Garcia (UTEP), Jane Martinez (UTEP)

Mentor and supervisor for > 30 undergraduate lab and field assistants 2000-2014

**Invited Workshops and Working Groups**

Warming and Removal in Mountains – Investigator, International Network Experiment 2015-2020

Next Generation Polar Researchers Leadership Symposium 2015 (Catalina Island, CA)

Women Evolving Biological Sciences Workshop 2013 (Durham, North Carolina)

Serengeti Biodiversity Program, 2007-9 Developing sustainable human-natural systems (Vancouver BC)

BioMERGE Adaptive Synthesis Workshops,

2006 - Consequences of changing biodiversity- Solutions and scenarios (Ascona, Switzerland)

2005 - Biodiversity and ecosystem functioning- Cross biome syntheses (Kota Kinabalu, Malaysia)

2003 - Integration of functional and taxonomic diversity (St. Louis MO, USA)

#### Professional Service and Outreach

**Manuscript Reviews**

*Austral Ecology,* *Arctic, Antarctic and Alpine Biology, Biogeochemistry, Biogeosciences, Biological Invasions, Climate Change Responses, Ecology*, *Ecology Letters*, *Ecosphere,* *Ecosystems, Functional Ecology, Global Change Biology*, *Israeli Journal of Ecology and Evolution,* *Journal of Applied Ecology*, *Journal of Ecology*, *Journal of Vegetation Science, Nature*, *Nature Climate Change*, *Nature Ecology and Evolution*, *New Phytologist, New Zealand Journal of Botany, Oecologia, Oikos*, *Plant and Soil*, *Plant Biology*, *Plant Ecology*, *Soil Biology and Biochemistry*

**Grant Review Panelist**

 NSF Division of Environmental Biology (2016)

 Department of Energy - Terrestrial Ecosystem Sciences (2016)

 NSF Geosciences (2015)

 NSF DDIG (2015, 2016)

 USDA/NIFA – Renewable Energy, Natural Resources and Environment (2014, 2017)

**Grant Reviews**

National Science Foundation (2014-Present), Israeli Science Foundation, (2014) British Ecological Society Research and Outreach Grants (2012-present), Natural Environment Research Council, UK (2016)

**Elected Positions**

 Secretary, Biogeosciences Section, Ecological Society of America (2014-2016)

 Member, Faculty Senate, University of Texas at El Paso (2017-2019)

**Media**

Research featured on El Paso Inc (Dec 2016), El Paso Herald Post (Dec 2016), Newsday.com (Aug 2011), CBC Radio (Aug 2009), Yukon News (Aug 2009, Sept 2009), Yukon Magazine (Oct 2009)

**Membership in Professional Societies**

Ecological Society of America (2002-present), Arctic Institute of North America (2004-present)

British Ecological Society (2008 – present), Assoc. of Polar Early Career Scientists (2011 – present), American Geophysical Union (2012-present), BES Review College (2012-present)

**Outreach**

Served as judge for:

Outstanding Student Poster Award at UTEP COURI Annual Symposium (2014)

ESA Biogeosciences Section Outstanding Student Presentation Award (2013-2015)

ESA Gene E. Likens Outstanding publication award in Biogeosciences (2014-2015)

ESA Elizabeth Sulzman Outstanding publication award in Biogeosciences (2014-2015)

ESA Braun/Buell Award judge for outstanding graduate student presentation (2011 - 2013)

Outstanding Student Poster award judge American Geophysical Union Annual meeting (2012)

Co-Organizer and Moderator: Organized Oral Session at Ecological Society of America 100th Annual Meeting, “Dead Roots: The Dark Side of the Carbon Cycle” (2015)

Moderator and Mentor: Creating Connections Conference on Professional Development and Participation of Women in STEM (2013)

Co-hosted 10 High school Science Teachers at Toolik Research Station through Polar TREC (Teachers and Researchers Exploring and Collaborating) (2012)

Assisted with a Climate change and tundra ecosystems session at *Expanding Your Horizons,* a hands-on science workshop for 6th-8th grade girls at University of Texas at Arlington (2010)

Consultant for soil microbe art installation “Underfoot yet Overhead” (Artist Karen Kazmer) including workshops with 5th grade classrooms in Surrey, BC, Canada (2009)

Public Seminar – “Impacts of Global Change in the Arctic and Beyond” UTEP Earth Science Day Celebration, October 2015

Public Seminar – Biological Impacts of Climate Change in the Arctic and Beyond: Revisiting the IPCC Report, Academy for Learning in Retirement, Las Cruces NM, February 2016