Curriculum Vitae of

David R. Johnson, PhD

Lecturer
Department of Biology
Texas State University
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Professional Experience

Associate Professor of Instruction, Department of Biology, Texas State University 2024-present

Lecturer, Department of Biology, Texas State University, 2017-2024

Adjunct Instructor, University of Texas, 2017 - 2019

Adjunct Instructor, St. Edward's University, 2018

Visiting Assistant Professor, St. Edward's University, 2012-2014, 2016 - 2017

Adjunct Professor, St. Edward's University, 2014-2015

Post-Doctoral Research Scientist, University of Texas at El Paso, 2008-2012
Mentor: Craig Tweedie, Ph.D.

Adjunct Professor, El Paso Community College, 2011

Education

Doctor of Philosophy in Quantitative Biology, University of Texas at Arlington, 2008
Dissertation: How herbivores affect plant growth, community structure and litter decomposition in Alaskan arctic tundra: implications for responses to climate change
Mentor: Laura Gough, Ph.D.

Master of Science in Biology, Idaho State University, 2003
Thesis: Species composition, diversity, and productivity of plant communities on prehistoric Aleut village sites on the lower Alaska Peninsula
Mentor: Nancy J. Huntly, Ph.D.

Bachelor of Science in Biology, Idaho State University, 2000
Mentor: Jay E. Anderson, Ph.D.

Career Goals

My primary goal is to develop a teaching program that enables students to understand how the evolutionary history and ecologies of individual organisms, communities, and ecosystems are integrated within a global system largely affected by human activities (e.g. global climate warming, urbanization). In general, I am interested in the evolution of anthropogenically driven systems, plant and community ecology, plant-animal interactions, herbivory, trophic structure, urban ecology, understanding patterns of species biogeography, and portraying the importance of preserving biodiversity and the integrity of ecosystems to the public at large. I also have a passion for extending the conceptual understanding of biological concepts to non-scientists in order to increase informed decision making and the improvement of every-day lives.

Refereed Publications

Scharnagle, K., **D. Johnson** and D. Ebert-May. 2019. Shrub expansion and alpine plant community change: 40-year record from Niwot Ridge, Colorado. Plant Ecology and Diversity 12:407-416.

Gough, L. and **D.R. Johnson** 2017. Mammalian herbivory exacerbates plant community responses to long-term increased soil nutrients in two Alaskan tundra plant communities. Arctic Science doi: 10.1139/AS-2017-0025.

Lara, M.J., **D.R. Johnson**, C. Andresen R.D. Hollister and C.E. Tweedie. 2016. Peak season carbon exchange shifts from a sink to a source following 50+ years of herbivore exclusion in an Arctic tundra ecosystem. Journal of Ecology 101:122-131

Johnson, D.R. and L. Gough. 2013. Two arctic graminoids differ in tolerance to herbivory when grown with added soil nutrients. Botany 91:82-90.

Lin, D.H., **D.R. Johnson**, C. Andresen and C.E. Tweedie. 2012. High spatial resolution decade-time scale land cover change at multiple locations in the Beringian Arctic (1948 – 2000s) Environmental Research Letters 7:025502+14.

Gough L., J.C. Moore, G.R. Shaver, R.T. Simpson and **D.R. Johnson**. 2012. Above- and belowground responses to increased nutrients in arctic tundra: a test of EEH. Ecology 93:1683-1694.

Elmendorf SC, GHR Henry, RD Hollister, RG Björk, N Boulanger-Lapointe, EJ Cooper, JHC Cornelissen, TA Day, E Dorrepaal, TG Elumeeva, M Gill, WA Gould, J Harte, DA Hik, A Hofgaard, F Jarrad, **D.R. Johnson**, JF Johnstone, I Jónsdóttir, J Jorgenson, K Klanderud, JA Klein, S Koh, G Kudo, M Lara, E Lévesque, B Magnússon, JL May, J Mercado, A Michelsen, U Molau, IH Myers-Smith, SF Oberbauer, VG Onipchenko, C Rixen, NM Schmidt, GR Shaver, MJ Spasojevic, ÞE Þórhallsdóttir, A Tolvanen, T Troxler, CE Tweedie, S Villareal, CH Wahren, X Walker, PJ Webber and S Wipf. 2012. Tundra vegetation change and recent climate warming: is there evidence at the plot scale? Nature Climate Change 2:453-457.

Villarreal, S., C.E. Tweedie, R. Hollister, M.J. Lara, **D.R. Johnson** and P.J. Webber. 2012. Tundra vegetation change near Barrow, Alaska (1972-2010). Environmental Research Letters 7:015508+10.

Lara, M.J., S. Villarreal, S., **D.R. Johnson**, R.D. Hollister, P.J. Webber and C.E. Tweedie. 2012. Estimated change in tundra ecosystem function from 1972 to 2010 near Barrow Alaska. Environmental Research Letters 7:015507+10.

Johnson, D.R., M.J. Lara, G.R. Shaver, G.O. Batzli, J.D. Shaw and C.E. Tweedie. 2011. Exclusion of brown lemmings reduces vascular plant cover and biomass in Arctic coastal tundra: resampling of a 50+ year exclosure experiment near Barrow, Alaska. Environmental Research Letters 6:045507+8.

Johnson, D.R. D. Ebert-May, P.J. Webber and C.E. Tweedie. 2011. Forecasting alpine vegetation change using repeat sampling and a novel modeling approach. Ambio 40:693-704.

Callaghan, T.V., C.E. Tweedie, J. Åkerman, C. Andrews, J. Bergstedt, M.G. Butler, T.R. Christensen, D. Cooley, U. Dahlberg, R.K. Danby, F.J.A. Daniëls, J.G. de Molenaar, J. Dick, C.E. Mortensen, D. Ebert-May, U. Emanuelsson, H. Eriksson, H. Hedenås, D.S. Hik, J.E. Hobbie, E. J. Jantze, C. Jaspers, C. Johansson, M. Johansson, **D.R. Johnson**, J.F. Johnstone, C. Jonasson, C. Kennedy, A.J. Kenney, F. Keuper, S. Koh, C.J. Krebs, H. Lantuit, M.J. Lara, D. Lin, V.L. Lougheed, J. Madsen, N. Matveyeva, D.C. McEwen, I.H. Myers-Smith, Y.K. Narozhniy, H. Olsson, V.A. Pohjola, L.W. Price, F. Rigét, S. Rundqvist, A. Sandström, M. Tamstorf, R. Van Bogaert, S. Villarreal, P. J. Webber, and V.A. Zemtsov. 2011. Multi-decadal changes in tundra environments and ecosystems: synthesis of the international Polar Year – Back to the Future Project (IPY-BTF). Ambio 40:705-716.

Gough, L., K. Shrestha, **D.R. Johnson**, and B. Moon. 2008. Long-term mammalian herbivory and nutrient addition alter lichen community structure in Alaskan dry heath tundra. Arctic, Antarctic and Alpine Research 40:65-73.

Gough, L., E.A. Ramsey, and **D.R. Johnson**. 2007. Plant-herbivore interactions in Alaskan arctic tundra change with soil nutrient availability. Oikos 116:407-418.

Non-Refereed Publications

Johnson, D.R., N. Barrett and M Fencl. 2016. Annual Report: Determining patters of plant succession, ecosystem services and hydrology at Wild Basin Wilderness Preserve. Prepared for Balcones Canyon Preserve, Travis County, TX.

Johnson, D.R., A Hernandez, A. Brebion, V. Johnson, E. Nowaicek, and S. Garcia. 2015. Annual Report: Determining interannual variability in vegetation structure and exploring leaf decomposition and fungal metabolism at Wild Basin Wilderness Preserve. Prepared for Balcones Canyon Preserve, Travis County, TX.

Johnson, D.R., A. Alexander, D. Ben-Moyel, D. Bruno, E. Nowaicek, and M. Spaits. 2014. Annual Report: Determining interannual variability in vegetation structure and the relationship between structure and ecosystem function at Wild Basin Wilderness Preserve. Prepared for Balcones Canyon Preserve, Travis County, TX.

Johnson, D.R., M. Satcher and L. Kelley. 2013. Annual Report: Vegetation survey at Wild Basin Wilderness Preserve and Adjacent BCP Vireo Preserve. Prepared for Balcones Canyon Preserve, Travis County, TX and City of Austin, TX.

Tweedie, C.E., **D.R. Johnson**, M.J. Lara, S. Villarreal, P.J. Webber and D. Witt. 2011. IPY-Back to the Future (BTF): Re-sampling research sites established more than 25 years ago to assess future trajectories of change in high latitude terrestrial ecosystem structure and function. Final Report for Nunavut Department of Environment – Permit #WL 2009-025. 4 pp.

Tweedie, C.E., **D.R. Johnson**, M.J. Lara and S. Villarreal. 2010. IPY Back to the Future (BTF): Resampling research sites established more than 25 years ago to assess future trajectories of change in high latitude terrestrial ecosystem structure and function. Sixth Annual Report: 2009 Barrow Environmental Observatory. BEO Subcommittee, Barrow Arctic Science Consortium, Ukpeaġvik Iñupiat Corporation and North Slope Borough, Barrow Alaska. Pp 42-47. www.arcticscience.org.

Tweedie, C.E., **D.R. Johnson**, M.J. Lara and S. Villarreal. 2009. IPY Back to the Future (BTF): Resampling research sites established more than 25 years ago to assess future trajectories of change in high latitude terrestrial ecosystem structure and function. Sixth Annual Report: 2009 Barrow Environmental Observatory. BEO Subcommittee, Barrow Arctic Science Consortium, Ukpeaġvik Iñupiat Corporation and North Slope Borough, Barrow Alaska. Pp 55-66. www.arcticscience.org.

Published Abstracts (Presentations and Posters)

*Denotes Supervised Undergraduate Research Student

* Risinger, J.E. D.R. Johnson and R.Deaton Haynes. 2017. Halophyte biodiversity and it's correlation with seagrass and fish biodiversity along the Gulf Coast at Port Aransas, TX. Texas Academy of Science Annual Meeting, March 3-5, 2017.

*Barrett, N and **D.R. Johnson**. 2016. Soil moisture retention and community type at Wild Basin Wilderness Preserve. NSF-CASAR/TG/2016 Summer Research Symposium, St. Edward's University. June 27, 2016.

*Fencl, M. and **D.R. Johnson**. 2016. Modeling ecosystem services at Wild Basin using fire succession patterns. NSF-CASAR/TG/2016 Summer Research Symposium, St. Edward's University. June 27, 2016.

*Hernandez, A. and **D.R. Johnson**. 2015. Nature's Essential Recycling System: Analysis of Variation in Leaf Decomposition of Quercus texana, Rhus virens, Juniperus ashei, Garrya lindheimeri at Wild Basin Preserve. Keck/NSF-CASAR/TG 2015 Summer Research Symposium, St. Edward's University, June 29, 2015.

*Johnson, V. and **D.R. Johnson**. 2015. Yucca Plant Pollinator Activity and Diversity: Analization of Pollination Activity and Diversity in Yucca Rupicola and Yucca Constricta in Wild Basin Preserve. Keck/NSF-CASAR/TG 2015 Summer Research Symposium, St. Edward's University, June 29, 2015.

*Nawoichik, B. and **D.R. Johnson**. 2015. Mammal Decompositional Inputs to Soil Nutrients Mediated by Insects. Keck/NSF-CASAR/TG 2015 Summer Research Symposium, St. Edward's University, June 29, 2015.

*Sanchez-Santibenez, M. and **D.R. Johnson**. 2015. How do leaf miners affect photosynthesis in Texas Lantana and Red Oak? Keck/NSF-CASAR/TG 2015 Summer Research Symposium, St. Edward's University, June 29, 2015.

*Andre Brebion, A., A. Cuartas-Olarte, M. Rodriguez, A. Belair, T. Bilinski and **D.R. Johnson**. 2015. Effects of Urbanization on Ecosystem Services at Wild Basin Wilderness Preserve: Chemistry, Microbiology, and Biodiversity. Keck/NSF-CASAR/TG 2015 Summer Research Symposium, St. Edward's University, June 29, 2015.

*Garcia, S. and **D.R. Johnson**. 2015. Exploring the change in vegetation structure through time at Wild Basin Wilderness Preserve. Keck/NSF-CASAR/TG 2015 Summer Research Symposium, St. Edward's University, June 29, 2015.

*Ben-Moyal, D. and **D.R. Johnson**. 2014. The Soil Seed Bank of Wild Basin. NSF-CASAR/TG/Keck Summer 2014 Research Symposium, St. Edward's University, June 25-26, 2014.

*Spaits, M. and **D.R. Johnson**. 2014. How does Cryptogamic Crust affect vegetation abundance in different plant communities at Wild Basin? NSF-CASAR/TG/Keck Summer 2014 Research Symposium, St. Edward's University, June 25-26, 2014.

*Alexander, A. and **D.R. Johnson**. 2014. How do Cellulose-Degrading Microbes Influence Texas Red Oak (Quercus buckleyi), Ashe Juniper (Juniperus ashei), Evergreen Sumac (Rhus virens) Leaf Litter Decomposition in Different Wild Basin Plant Communities? . NSF-CASAR/TG/Keck Summer 2014 Research Symposium, St. Edward's University, June 25-26, 2014.

*Nawoichik, B. and **D.R. Johnson**. 2014. Plant Growth and Mammalian Decomposition among Wild Basin Plant Community Soils. NSF-CASAR/TG/Keck Summer 2014 Research Symposium, St. Edward's University, June 25-26, 2014

*Bruno, D. and **D.R. Johnson**. 2014. How does animal activity vary among different plant communities in Wild Basin? NSF-CASAR/TG/Keck Summer 2014 Research Symposium, St. Edward's University, June 25-26, 2014

*Kelley, L. and **D.R. Johnson**. 2014. Determining the drivers of plant community structure of Wild Basin Wilderness Preserve and BCP Vireo Preserve. 13th Annual Symposium on Undergraduate Research and Creative Expression. St. Edward's University, April 11, 2014.

*Obkirchner, K. and **D.R. Johnson**. 2014. The combined effects of varying nitrogen and water levels on the development and biomass of hard red winter wheat. 13th Annual Symposium on Undergraduate Research and Creative Expression. St. Edward's University, April 11, 2014.

Johnson, D.R. M. Satcher, L. Kelley, J. Brickley and J.P. Davies. 2014. Determining the drivers of plant community structure of Wild Basin Wilderness Preserve and BCP Vireo Preserve. Texas Academy of Science Annual Meeting, March 6-9, 2014.

*Obkirchner, K. and **D.R. Johnson**. 2014. The combined effects of varying nitrogen and water levels on the development and biomass of hard red winter wheat. Texas Academy of Science Annual Meeting March 6-9, 2014.

Villarreal, S. **D.R. Johnson**, P.J. Webber, R.D. Hollister and C.E. Tweedie. 1013. Decadal change in north-American tundra plant communities. 2013 American Geophysical Union Fall Meeting.

Webber, P.J., M.D. Walker, C.E. Tweedie, **D.R. Johnson**, R.D. Hollister, M.J. Lara, S. Villarreal and D. Ebert-May. 2013. Welcome Notes and History. Arctic Vegetation Archive Workshop. October 14-15, 2013, Boulder, CO.

Villarreal, S., P.J. Webber, **D.R. Johnson**, R.D. Hollister, M.J. Lara, D.H. Lin and C.E. Tweedie. 2013. Vegetation datasets from the North Slope of Alaska, Baffin Island Canada, and the Beringia Region. Arctic Vegetation Archive Workshop. October 14-15, 2013, Boulder, CO.

D.H. Lin, **D.R. Johnson**, M.J. Lara, S. Villarreal, R.D. Hollister, P.J. Webber and C.E. Tweedie. 2012. Decade time scale plot to landscape change in tundra ecosystem structure and function near Barrow, AK. 2012 American Geophysical Union Fall Meeting.

Lara, M.J., M.J. Lara, **D.R. Johnson**, V. Lougheed and C.E. Tweedie. 2012. Species-specific CO_2 and CH_4 responses to nutrient increases in aquatic habitats of the Alaskan Arctic: Implications from a closed environmental study. 2012 American Geophysical Union Fall Meeting.

Moore, J.C., L. Gough, R.T. Simpson and **D.R. Johnson**. 2012. Aboveground and belowground responses to nutrient additions and herbivore exclusion in arctic tundra ecosystems in northern Alaska. LTER All-Scientists Meeting. Estes Park, Colorado, 10-13 September.

Ebert-May, D. **D.R. Johnson**, P.J. Webber and C.E. Tweedie. 2012. A new 40-year analysis of plant community change on Niwot Ridge, Colorado shows increases in shrub cover and change along a soil moisture gradient. 97th Annual Meeting of the Ecological Society of America Portland, Oregon. 6-11 August.

Lara, M.J., **D.R. Johnson** and C.E. Tweedie. 2012. Long-term lemming herbivory alters carbon and energy balance of Alaskan coastal tundra. IPY 2012 – From Knowledge to Action, Montreal Canada, April 22-27.

Villarreal, S., P.J. Webber**, D.R. Johnson**, M.J. Lara and C.E. Tweedie. 2012. Forty-seven years of terrestrial structural and functional changes on Baffin Island, Canada. IPY 2012 – From Knowledge to Action, Montreal Canada, April 22-27.

Moore, J.C., L. Gough, R. Simpson and **D.R. Johnson**. 2011. Aboveground and belowground responses to nutrient additions and herbivore exclusion in northern Alaska. 2011 American Geophysical Union Fall Meeting.

Johnson, D.R., M. Lara, S. Villarreal, P. Webber, G.R. Shaver, G.O. Batzli and C.E. Tweedie. 2011. Lemmings drive long-term vegetation and carbon dynamics in coastal tundra: resampling historic herbivore exclosures near Barrow Alaska. 96th Annual Meeting of the Ecological Society of America Austin, Texas. 7-12 August.

Lara, M.J., S. Villarreal, **D.R. Johnson**, P.J. Webber and C.E. Tweedie. 2011. Impact of decade-time scale plant community change on tundra ecosystem function near Barrow Alaska. 96th Annual Meeting of the Ecological Society of America Austin, Texas. 7-12 August.

Tweedie, C.E., D. Ebert-May, R.D. Hollister, **D.R. Johnson**, M.J. Lara, S. Villarreal, M. Spasojevic, and P. Webber. 2010. Decadal time scale change in terrestrial plant communities in North American arctic and alpine tundra: A contribution to the International Polar Year Back to the Future Project. Invited contribution to the 2010 American Geophysical Union Fall Meeting.

Johnson, D.R., M.J. Lara, G.O. Batzli, G.R. Shaver and C.E. Tweedie. 2010. Herbivory and soil moisture drive long-term patterns of vegetation structure and function in Alaskan coastal tundra: results from resampling historic exclosures at Barrow. 2010 American Geophysical Union Fall Meeting.

Webber, P.J., M. Lara, S. Villarreal, **D.R. Johnson** and C.E. Tweedie. 2010. The greening valleys of the Lewis Glacier and Isortoq River, North-central Baffin Island, Nunavut, Canada. Understanding Circumpolar Ecosystems in a Changing World: Outcomes of the International Polar Year 3-6 November, Edmonton, Alberta, Canada.

Johnson, D.R. 2010. Herbivores in a warmer Arctic: an update on UTEP-BTF. Barrow Arctic Science Consortium Saturday Schoolyard. 31 July, Barrow, Alaska.

Johnson, D.R., T. Callaghan and C.E. Tweedie. 2010. IPY-Back to the Future: Assessing long-term patterns of change in arctic and alpine terrestrial ecosystems. International Polar Year Oslo Conference. Oslo, Norway. 8-12 June.

Villarreal, S., **D.R. Johnson**, M.J. Lara, P.J. Webber and C.E. Tweedie. 2010. IPY- Back to the Future (BTF): Plant community change over 45 years in northern Baffin Island, Canada. International Polar Year Oslo Conference. Oslo, Norway. 8-12 June.

Johnson, D.R., S. Villarreal, M.J. Lara, P.J. Webber, D. Ebert-May, R.D. Hollister and C.E. Tweedie. 2010. Terrestrial plant community change in North American arctic and alpine tundra: Re-sampling the Webber Legacy. International Polar Year Oslo Conference. Oslo, Norway. 8-12 June.

Lara, M.J., S. Villarreal, **D.R. Johnson**, P. Webber and C.E. Tweedie. 2010. Predicting decade-time scale change in plant productivity at a recently deglaciated site in the Canadian High Arctic. International Polar Year Oslo Conference. Oslo, Norway. 8-12 June.

Tweedie, C.E., **D.R. Johnson**, S. Villarreal, M.J. Lara and P.J. Webber. 2010. Update on the IPY-Back to the Future project. ITEX community change synthesis workshop Vancouver, Canada. 2-6 May.

Lara, M.J., S. Villarreal, **D.R. Johnson**, P.J. Webber and C.E. Tweedie. 2010. High Arctic Carbon Balance and Productivity Shifts in Baffin Island Canada Over a Multi-Decadal Time Scale. State of the Arctic Meeting, Miami, Florid, 16-19 March.

Johnson, D.R., T. Callaghan and C.E. Tweedie. 2010. IPY-Back to the Future: Assessing Long-term Patterns of Change in Arctic and Alpine Terrestrial Ecosystems. State of the Arctic Meeting, Miami, Florida, 16-19 March.

Villarreal, S., M.J. Lara, **D.R. Johnson**, P.J. Webber and C.E. Tweedie. 2010. Back to the Future (BTF): Resampling Vegetation Plots to Assess 45 Years of Change in Arctic Plant Communities in Baffin Island, Canada. State of the Arctic Meeting Miami, Florida. 16-19 March.

Johnson, D.R., S. Villarreal, M. Lara, P. Webber, D. Ebert-May, R. Hollister and C.E. Tweedie. 2010. Long-term Patterns of Change in High-latitude and Altitude Terrestrial Ecosystems: An Update on IPY: Back to the Future. State of the Arctic Meeting, Miami, Florida, 16-19 March.

Johnson, D.R., S. Villarreal, M. Lara, P. J. Webber, T. Callaghan, D. Hik, C. E. Tweedie. 2009. IPY-Back to the Future: Determining decadal time scale change in ecosystem structure and function in high latitude and high altitude tundra ecosystems. 2009 American Geophysical Union Fall Meeting.

Villarreal, S., C.E. Tweedie, P.J. Webber, R. Hollister , **D.R. Johnson**, and M.J. Lara,. 2009. Back to the Future (BTF): Resampling of Webber vegetation plots of Barrow, Alaska. International Polar Year '*Back to The Future'* (IPY-BTF) project meeting. El Paso, Texas. 10-13 November.

Villarreal, S., C.E. Tweedie, P.J. Webber, **D.R. Johnson**, O. Sumina, R.D. Hollister and M.J. Lara. 2009. Back to the Future (BTF): resampling of Atqasuk, Alaska RATE Webber ordination plots. International Polar Year '*Back to The Future'* (IPY-BTF) project meeting. El Paso, Texas. 10-13 November.

Villarreal, S. P.J. Webber, C. Tweedie, **D.R. Johnson** and M.J. Lara. 2009. Back to the Future (BTF): 2009 resampling of the Baffin Island Webber vegetation plots. International Polar Year '*Back to The Future'* (IPY-BTF) project meeting. El Paso, Texas. 10-13 November.

Johnson, D.R., P.J. Webber, D. Ebert-May, M. Spasojevic and C.E. Tweedie. 2009. Resampling of the Niwot Ridge Webber/Ebert-May ordination plots. . International Polar Year '*Back to The Future'* (IPY-BTF) project meeting. El Paso, Texas. 10-13 November

Johnson, D.R., P.J. Webber, S. Villarreal, M. Lara and C.E. Tweedie. 2009. Resampling the historic herbivory exclosures at Barrow, Alaska. International Polar Year '*Back to The Future'* (IPY-BTF) project meeting. El Paso, Texas. 10-13 November.

Lara, M., S. Villarreal., **D.R. Johnson**, C.E. Tweedie and P.J. Webber. 2009. Functional significance of plant community change in the Northeastern American Arctic. International Polar Year '*Back to The Future'* (IPY-BTF) project meeting. El Paso, Texas. 10-13 November.

Johnson, D.R. 2010. BTF Synthesis II: a meta-analysis effort. International Polar Year '*Back to The Future'* (IPY-BTF) project meeting. El Paso, Texas. 10-13 November.

Lara, M.J. et al. 2009. Functional changes in ecosystems: measurements and inferences from changes in vegetation and the physical environment – Baffin Island. 2009 SACNAS conference, Dallas, Texas. 14-17 October.

Villarreal, S., C.E. Tweedie, **D.R. Johnson**, P.J. Webber, R. Hollister, M.J. Lara and C. Andresen. 2009. Back to the Future: Re-sampling old research sites to assess changes in arctic plant community composition in Barrow, Alaska. 94th Annual Meeting of the Ecological Society of America Albuquerque, New Mexico. 2-7 August, 2009.

Johnson, D.R., C.E. Tweedie, S. Villarreal, M. Lara, T. Callaghan. 2008. International Polar Year - Back to the Future (IPY-BTF): Re-sampling sites more than 25 years old to assess change in arctic ecosystem structure and function. 2008 American Geophysical Union Fall Meeting.

Johnson, D.R. 2007. Two arctic graminoids growing with increased soil nutrients recover differently from natural and simulated herbivory. 92nd Annual Ecological Society of America Meeting, August 5-10, 2007 San Jose, CA.

Huntly, N.J., B.P. Finney, K.D. Gilliland, and **D. Johnson**. 2007. What maintains the distinct vegetation of ancient Aleut village site long after habitation? 92nd Annual Ecological Society of America Meeting, August 5-10, 2007 San Jose, CA.

Johnson, D.R. 2007. Natural and simulated herbivory effect two arctic graminoids growing with increased nutrients differently. Annual Celebration of Excellence by Students in Graduate Research and Undergraduate Research and Creative Activity (ACES), University of Texas at Arlington. March 30, 2007

Johnson, D.R., L. Gough and E.A. Ramsey. 2006. Nutrient amendment and herbivory interact differently for five arctic Alaska plant species. 91st Annual Ecological Society of America Meeting, August, 6-11, 2006 Memphis, TN.

Johnson, D.R., R. Simpson, K. Wyant, L. Gough, and J.C. Moore. 2006. Linking above and below ground trophic structure with increased nutrient availability. 13th Annual Winter Arctic LTER meeting, March 23-25, 2006, Woods Hole, MA.

Johnson, D.R., E. Ramsey, and L. Gough. 2005. Nutrient amendment and herbivory interact differently for five arctic Alaska plant species. Annual Celebration of Excellence by Students in Graduate Research and Undergraduate Research (ACES), University of Texas at Arlington. April 1st, 2005

Musina, B., S. Setla, S. Juice, J. Powers, B. Bernharte, **D. Johnson**, M.S. Bret-Hardt, P. Ray, and J. Hobbie. 2005. Initial survey of the tundra fire at the confluence of the Adagan and Sagavinirtok rivers. 12th Annual Winter Arctic LTER meeting, March 10-12, 2005, Woods Hole, MA.

Huntly, N., **D.R. Johnson**, and M.G.D. Maschner. 2004. Changes in species composition and diversity on Archaeological sites on the lower Alaska Peninsula. 89th Annual Ecological Society of America Meeting, August, 1-6, 2004 Portland, OR.

Johnson, D.R. 2002. The impact of prehistoric people on contemporary plant communities on the lower Alaska Peninsula: causes and consequences. 10th Annual Arctic Archaeology Conference, Idaho State University, Pocatello, ID.

Johnson, D.R. 2002. Altered plant communities on the Lower Alaska Peninsula: an hypothesis for humans as ecosystem engineers. 29th Annual Alaskan Anthropological Association Meeting. Anchorage, AK.

Smith, L.L., J.W. Jordan, **D.R. Johnson**, C. Haskell, and H.D.G. Maschner. 2002. Economic impacts of sea level change, and the environmental impact of village life at Adamagan on the western Alaska Peninsula. 68th Annual Society for American Archaeology Meeting, Denver, CO.

Johnson, D.R. 2001. Vegetation regimes at Adamagan. 28th Annual Alaskan Anthropological Association Meeting. Fairbanks, AK.

Johnson, D.R., N.J. Huntly, and H.D.G. Maschner. 2001. Preliminary evidence of alteration the of plant communities by prehistoric Aleuts on the lower Alaska Peninsula. 9th Annual Arctic Archaeology Conference University of Utah, Salt Lake City, UT.

Invited Speaker

Master's in Environmental Science and Management Program, St. Edward's University – *Understanding the relationship between ecosystem structure and function*. Jan 2016

Biological Sciences Seminar Series, St. Edward's University – *Change in Arctic and Alpine Terrestrial Ecosystems: Identifying the "New Normal" ,* February 2013

Barrow Area Science Consortium, Saturday Schoolyard – *The role of small mammals in Arctic tundra*, July, 2010

Biological Sciences, University of Texas at El Paso – *How herbivores and soil nutrients interact shaping tundra plant communities in a warmer Arctic* October, 2008

Faculty Development

2023 – Participant in TSU CoSE STEM Communities Summer Institute, May 2023

2023 – Participant in STEM Course Transformation for Functional Biology May-August 2023

Courses Taught

2025	Plants Important for Wildlife, Texas State University
2019-2026	Organismal Biology, Texas State University
2017-2025	Functional Biology, Texas State University
2020-2026	Evolution, Texas State University
2018	Statistical Analysis and Decision Modeling, St. Edward's University
2017-2019	Evolution, University of Texas at Austin
2017	Biological Principles, St Edward's University
2013-2017	Organisms and Populations, St. Edward's University
2014-2016	Organisms and Populations Lab, St. Edwards's University
2015	Cells, Genetics and Organ Systems
2014-2015	Human Ecology
2013-2017	Independent Student Research
2012-2014	Cells, Genetics and Organ Systems Lab, St. Edward's University
2013, 2016	Urban Ecology, St. Edward's University
2012-2013, 2016	Evolution, St. Edward's University
2013, 2017	Plant Biology, St. Edward's University
2012	Contemporary Biology – The Ecology of the Human Condition, St. Edward's University
2011	Introductory Biology for Non-Science Majors, El Paso Community College
2007-2008	Plant Science, University of Texas at Arlington
2005, 2007-2008	Cell and Molecular Biology, University of Texas at Arlington
2003	Botany, Idaho State University

Collaborations

Wild Basin Living Database – W.M. Keck Foundation/SEU

International Tundra Experiment (ITEX)

International Polar Year – Back to the Future (IPY-BTF)

Grants

2013-2015	Collaborator with J. Abbott P.I. *Wild Basin Digital Database* W.M.Keck Foundation, $200,000
2011	Co-investigator with D. Ebert-May *Niwot Ridge: Long-term study of alpine plant communities*. Niwot Ridge Long-term Ecological Research Station, $5,350.
2002	Principal investigator *Elemental Analysis of Nitrogen on Prehistoric Human Altered Soils on the Lower Alaska Peninsula* Graduate Student Research and Scholarship Committee, Idaho State University. $300

Students Mentored

Autumn Wysocki	Fall 2022 – *Environmental injustice in America and why climate change is an environmental justice issue: a literature review*. Honor's Thesis Texas State University.
Karina Casas	Summer 2017 - *Activity of Insects, but not Birds, Increases with Soil Moisture Variability at Wild Basin Wilderness Preserve*
Anthony Avila	Summer 2017 - *Activity of Insects, but not Birds, Increases with Soil Moisture Variability at Wild Basin Wilderness Preserve*
Allison Stanley	Summer 2017 - *Activity of Insects, but not Birds, Increases with Soil Moisture Variability at Wild Basin Wilderness Preserve*
Ana Hernandez	Fall 2016 – Spring 2017 *Exploring the relationship between juniper litter and soil microbes*
James Risinger	Fall 2016 *Port Aransas halophyte diversity*
Beth Navoicek	Fall 2016 *Quantifying the effects of climate change on forensic entomology*
Nick Berrett	Summer 2016 *Soil hydrology at Wild Basin Wilderness Preserve*
Matt Fencl	Summer 2016 *Ecosystem services at Wild Basin Wilderness Preserve*
Andre Brebion	Summer 2015 *Wild Basin Stream Macroinvertebrates*
Marisol Sanchez	Summer 2015 *Wild Basin leaf miner herbivory*
Ana Hernandez	Summer 2015 *Wild Basin leaf decomposition*
Beth Navoicek	Summer 2015 *Wild Basin mammal decomposition*
Victor Johnson	Summer 2015 *Wild Basin Yucca pollination*
Sydney Garcia	Summer 2015 *Land cover change at Wild Basin*
Natalie Willard	Fall 2014 *Scaling aquaponic systems for experimental ecology*
Dominic Bruno	Summer 2014 *Animal behavior at Wild Basin*
Alysia Alexander	Summer 2014 *Wild Basin leaf decomposition*
Megan Spaits	Summer 2014 *Cryptogamic crusts at Wild Basin*
Daniel Ben-Moyal	Summer 2014 *The Wild Basin seed bank*
Paul Davies	Spring 2014 *Estimating high-Arctic climate change using Salix arctica annual ring production*
Paul Davies	Spring 2014 *Wild Basin soil analysis*
Kevin Obkirchner	Fall 2013 *Optimal soil nutrients and water conditions for winter wheat*
John Brickley	Fall 2013 *Wild Basin soil analysis*
Kevin Obkirchner	Summer 2013 *Optimal soil nutrients and water conditions for winter wheat*
Lauren Kelly	Summer 2013 *Estimation of vegetation structure of Wild Basin*
Michael Satcher	Summer 2013 *Estimation of vegetation structure of Wild Basin*
Eric Ramerez	Spring 2014 *Effects of soil water and nutrients on Basil growth*

Professional Awards

Post-Publication Peer Review – Faculty of 1000 – Johnson et al. 2011. Environmental Research Letters 6:045507 – Selected as "Must Read" by L. Oksanen.

Honorable Mention - Graduate Morning Oral Presentations in the Annual Celebration of Excellence by Students in Graduate Research and Undergraduate Research and Creative Activity (ACES), March 30th, 2007.

Dean of Science Best Poster - Annual Celebration of Excellence by Students in Graduate Research and Undergraduate Research (ACES), University of Texas at Arlington. April 1st, 2005

Service

Faculty Senate Library Committee, Texas State University – 2023-present
Pre-Health Advising Committee, Texas State University – 2021
Southwest Association of Naturalists (SWAN), Annual Meeting committee member, 2018
St. Edward's University SOURCE Committee member, 2013-2014
In-House Reviewer for J-Source, St. Edward's University 2012-2013
Ad-Hoc Reviewer for:

- *AoB Plants*
- *Ecotrends*
- 2015 McCarley Student Research Award – Southwest Association of Naturalists
- 2014 McCarley Student Research Award – Southwest Association of Naturalists
- University of Texas at Arlington - Phi Sigma Graduate Research Grant
- *Arctic, Antarctic and Alpine Research*
- *Biodiversity*
- *Journal of Ecology*
- *Oikos*
- *Functional Ecology*
- *Environmental Research Letters* "Greening of the Arctic" special issue
- *Ambio* "Back to the Future" special issue
- National Science Foundation - "Dimensions of Biodiversity" Program
- Texas Academy of Sciences – Student Research Award

Co-convener – Valle Verde Early College High School, Biological Sciences Field Day, University of Texas at El Paso, 2011
Faculty Judge – Annual Symposium, College Office of Undergraduate Research Initiatives, University of Texas at El Paso, 2011
Faculty Judge – Regional Conference of the Society for the Advancement of Chicanos and Native Americans in Science, University of Texas at El Paso, 2009
Faculty Judge – Geology Department Colloquium, University of Texas at El Paso, 2009
President – Phi Sigma Honors Society, University of Texas at Arlington Chapter, 2004-2005

Professional Societies

Southwest Association of Naturalist (SWAN)
Association of Polar Early Career Scientists
American Geophysical Union
Botanical Society of America
Ecological Society of America

Phi Sigma Honors Society
Texas Academy of Science

Project Management

For the last fifteen years, I have managed research teams investigating the relationships between ecosystem structure and function. My responsibilities have included developing research questions and experimental design, supervising researchers in both the field and the lab, managing data collection and integrity (QA/QC), analyzing and presenting data (both orally and written), permitting and organizing travel both locally and to remote field locations in the North American Arctic.

Statistical and Computing Skills

I have experience working with a variety of statistical methodologies including parametric, non-parametric and multivariate analyses, hierarchically structured models, as well as extensive experience developing and managing relational databases (SQL). I understand and work with all Windows based software (including both PC and Mac platforms), GIS (ArcGIS), various statistical packages (R, SAS, SPSS, Systat, SigmaPlot, JMP, CONOCO and PCOrd), and HTML.

Field Experience

I have had the experience of leading several field teams in remote areas of the North American arctic. These include leading undergraduate student researchers at the Arctic Long Term Ecological Research site at Toolik Lake, Alaska in 2004, 2005 and 2006, and graduate students at Barrow and Atqasuk Alaska in 2009 and 2010. Additionally, I have had experience organizing the logistics of an extensive field campaign in the Canadian High Arctic in 2009. For the last five years (2012-2017), I have also managed undergraduate researchers studying a variety of topics related to plant ecology at St. Edward's University. Thus, I am experienced in plant ecological studies, including a variety of vegetation sampling methods, plant taxonomy (specifically arctic flora, with a working knowledge of Texas flora). I am also experienced in the collection and analysis of soil and plant samples, including elemental analysis, field capacity, pH and incubation methodology. I have extensive knowledge of identification of western North American bird and mammal species.

Work Experience

2024-present	Associate Professor of Instruction, Texas State University
2017- 2024	Lecturer, Texas State University
2017- 2019	Adjunct Instructor, University of Texas at Austin
2018	Adjunct Professor, St. Edward's University
2016-2017	Visiting Assistant Professor, St. Edward's University
2014-2015	Adjunct Professor, St. Edward's University
2014	Substitute Teacher, Del Valle ISD
2012 – 2014	Visiting Assistant Professor, St. Edward's University
2011	Adjunct Professor, El Paso Community College
2008 – 2012	Post-Doctoral Research Scientist, Systems Ecology Lab, University of Texas at El Paso
2006 – 2008	Graduate Teaching Assistant, Department of Biology, University of Texas at Arlington
2005 – 2006	Graduate Research Assistant, Department of Biology, University of Texas at Arlington
2005	Graduate Teaching Assistant, Department of Biology, University of Texas at Arlington
2003-2005	Graduate Research Assistant, Department of Biology, University of Texas at Arlington
2003	Graduate Teaching Assistant, Department of Biological Sciences, Idaho State University

2000 - 2003 Graduate Research Assistant, Lower Alaska Peninsula Project, Department of Anthropology, Idaho State University

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