Kevin Rory Wilcox

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| CONTACT INFORMATION | |
| Kevin Wilcox  Research Associate  USDA-ARS Rangeland Resources Research Unit  Crops Research Laboratory  1701 Centre Avenue  Fort Collins, CO 80526 | Office: (970) 492-7130  Mobile: (425) 446-1747  [wilcoxkr@gmail.com](mailto:wilcoxkr@gmail.com)  Web:kevinwilcox.weebly.com  Twitter: @wilcoxkr |
| EDUCATION | |
| **Ph.D.** – Graduate Degree Program in Ecology *Colorado State University*,Fort Collins, Colorado  *Thesis*: “Assessing grassland sensitivity to global change”  *Advisor*: Alan K. Knapp  *Dissertation committee*: Melinda Smith, Joe von Fischer, Eugene Kelly | 2010 – 2015 |
| **Bachelor’s of Science** – Department of Biological Sciences *Central Washington University*, Ellensburg, Washington  Concentration in Plant Ecology, GPA: 3.7 | 2008 |

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| PROFFESIONAL EXPERIENCE | | |
| **Research Associate** | August 2017-present | |
| USDA Agricultural Research Station  Fort Collins, CO 80526 | | |
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| **Adjunct Faculty** | July 2017 | |
| *Wichita State University*, Department of Biological Sciences  Wichita, Kansas | | |
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| **Post-doctoral Research Fellow** | July 2015 – June 2017 | |
| *University of Oklahoma*, Department of Microbiology and Plant Biology  Norman, Oklahoma | | |
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| **Graduate Teaching Assistant** | January 2013 – May 2015 | |
| *Colorado State University*, Department of Biology, Fort Collins, Colorado | | |
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| **Graduate Research Assistant** | August 2010 – January 2013 | |
| *Colorado State University*, Department of Biology, Fort Collins, Colorado | | |
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| **Research Technician** | April – August 2010 | |
| *Colorado State University*, Department of Biology | | |
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| **Research Technician** | January – April 2010 | |
| *University of Puerto Rico at Río Piedras*, Luquillo Long Term Ecological Research Station | | |
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| **Research Assistant**  *University of Montana*, College of Forestry and Conservation  Missoula, Montana | | May – September 2009 |
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| **Research Assistant** | | May – September 2008 |
| *University of Washington*, School of Environmental and Forest Sciences  Seattle, Washington | | |

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|  | | REFEREED PUBLICATIONS | | |
|  | | 2017 | | |
| [21] | | Hoover, D.L., **Wilcox, K.R**.,Young, K.E. *in press*. Experimental droughts with rainout shelters: A methodological review. *Ecosphere*. | | |
| [20] | | **Wilcox, K.R.**, Tredennick, A.T., Koerner, S.E., Grman, E., Hallett, L.M., Avolio, M.L., La Pierre, K.J. et al. 2017*.* Asynchrony among local communities stabilizes ecosystem function of metacommunities. *Ecology Letters*.20:1534-1545 | | |
| [19] | | Zhang J., N. Zhao, C. Liu, H. Yang, M. Li, G. Yu, **K. Wilcox**, Q. Yu, N. He. 2017*.* C:N:P stoichiometry in China’s forests: from organs to ecosystems. *Functional Ecology*. doi:10.1111/1365-2435.12979 | | |
| [18] | | **Wilcox K.**, Z. Shi, L. Gherardi, N. Lemoine, S. Koerner, D. Hoover, et al. 2017.Asymmetric responses of primary productivity to climate extremes: a synthesis of grassland precipitation manipulation experiments. *Global Change Biology*. 23:4376-4385. | | |
| [17] | | Smith, M.D., **Wilcox, K.R.**, Power, S.A., Tissue, D.T., Knapp, A.K. 2017.Assessing community and ecosystem sensitivity to climate change – toward a more comparative approach. *Journal of Vegetation Science*. 28.2: 235-237. | | |
|  | | 2016 | | |
| [16] | | Burkepile, D. E., R. W. S. Fynn, D. Thompson, N. P. Lemoine, S. E. Koerner, S. Eby, N. Hagenah, **K. R. Wilcox**, S. L. Collins, K. P. Kirkman, A. K. Knapp, and M. D. Smith. 2016*.* Herbivore size matters for productivity-richness relationships in African savannas. *Journal of Ecology*. 105:674-686. | | |
| [15] | | Burkepile, D. E., D. Thompson, R. W. S. Fynn, S. E. Koerner, S. Eby, N. Govender, N. Hagenah, N. P. Lemoine, J. R. Matchett, **K. R. Wilcox**, S. L. Collins, K. P. Kirkman, A. K. Knapp, and M. D. Smith. 2016. Fire frequency drives habitat selection by a diverse herbivore guild impacting top-down control of plant communities in an African savanna. *Oikos*. 125:1636-1646. | | |
| [14] | | Koerner, S., M. Avolio, K. La Pierre, **K. Wilcox**, M. Smith, S. Collins. 2016. Nutrient additions cause divergence of tallgrass prairie plant communities resulting in loss of ecosystem stability. *Journal of Ecology*. 104:1479-1487. | | |
| [13] | | Ji C., Y. Luo, J. Xia, **K. Wilcox**, L. Jiang, X. Zhou, S. Niu, J. Liang, Z. Shi, J., J. Cao, et al. 2016. Warming effects on ecosystem carbon fluxes are modulated by plant functional groups. *Ecosystems*. doi:10.1007/s10021-016-0035-6 | | |
| [12] | | **Wilcox K.**, J. Blaire, A. Knapp. 2016. Stability of grassland soil C and N pools despite 25 years of an extreme climatic and disturbance regime. *JGR: Biogeosciences*. 121:1934-1945. | | |
| [11] | | Shi, Z., X. Xu, L. Souza, **K. Wilcox**, L. Jiang, J. Liang, J. Xia, P. García-Palacios, Y. Luo. 2016. Dual mechanisms regulate ecosystem stability under decade-long warming and biofuel harvest. *Nature Communications*. 7:doi:10.1038/ncomms11973. | | |
| [10] | | Smith, M. D., A. K. Knapp, S. L. Collins, D. E. Burkepile, K. P. Kirkman, S. E. Koerner, S. Eby, N. Govender, C E. Burns, R. W.S. Fynn, N. Hagenah, K. J. Matchett, D. I. Thompson, J. M. Blair, **K. R. Wilcox**. 2016. Shared drivers but divergent ecological responses: Insights from long-term experiments in mesic savanna grasslands. *BioScience*. 66:666-682. | | |
| [9] | | **Wilcox K.**, Blaire J, Smith M, Knapp A. 2016. Does ecosystem sensitivity to precipitation at the site-level conform to regional-scale predictions? *Ecology*. 97:561-568. | | |
|  | | 2015 | | |
| [8] | | Yu Q, **K. Wilcox**, K. La Pierre, A. Knapp, M. Smith. 2015. Stoichiometric homeostasis predicts plant species dominance, stability and responses to global change. *Ecology*. 96:2328-2335. | | |
| [7] | | Knapp, A., D. Hoover, **K. Wilcox**, M. Avolio, S. Koerner, K. La Pierre, M. Loik, Y. Luo, O. Sala, M. Smith. 2015. Characterizing differences in precipitation regimes of extreme wet and dry years beyond amount: Implications for climate change experiments. *Global Change Biology*. 21:2624-2633. | | |
| [6] | | Avolio M., K. La Pierre, G. Houseman, E. Grman, F. Isbell, D. S. Johnson, S. Koerner, **K. Wilcox**. 2015. A framework for quantifying the magnitude and variability of community responses to global change drivers. *Ecosphere*. 6:1-14. | | |
| [5] | | **Wilcox K.**, J. von Fischer, J. Muscha, M. Petersen, A. Knapp. 2015. Contrasting above- and belowground sensitivity of three Great Plains grasslands to altered rainfall regimes. *Global Change Biology* 21:335-344. | | |
|  | | 2014 | | |
| [4] | | Avolio M., S. Koerner, K. La Pierre, **K. Wilcox**, G. Wilson, M. Smith, S. Collins. 2014. Changes in plant community composition, not diversity, drive changes in aboveground productivity during a decade of nitrogen and phosphorus additions in a tallgrass prairie. *Journal of Ecology*.102:1649-1660. | | |
| [3] | | Eby, S., D. E. Burkepile, R. W. Fynn, C. E. Burns, N. Govender, N. Hagenah, S. E. Koerner, K. J. Matchett, D. I. Thompson, **K. R. Wilcox**, and others. 2014. Loss of a large grazer impacts savanna grassland plant communities similarly in North America and South Africa. *Oecologia* 175:293-303. | | |
| [2] | | Kirkman, K., S. Collins, M. Smith, A. Knapp, D. Burkepile, C. Burns, R. Fynn, N. Hagenah, S. Koerner, K. Matchett, D. Thompson, **K. Wilcox**, P. Wragg. 2014. Responses to fire differ between South African and North American grassland communities. *Journal of Vegetation Science* 25: 793-804. | | |
| [1] | | Koerner S., D. Burkepile, R. Fynn, C. Burns, S. Eby, N. govender, N. Hagenah, K. Matchett, K. Thompson, **K. Wilcox**, S. Collins, K. Kirkman, A. Knapp, M. Smith. 2014. Plant community response to loss of large herbivores differs between North American and South African savanna grasslands. *Ecology* 95:808–816. | | |
|  | | CONTRIBUTED BOOK CHAPTERS | | |
| [1] | | Jiang, L., Jiang, J., Liang, J., **Wilcox, K.**, Collins, S., Knapp, A., Pockman, W., Smith, M., Luo, Y. 2017. Frontiers of Ecosystem Modeling and Large-scale experiments. in Terrestrial Ecosystem Research Infrastructures Challenges, New developments and perspectives. | | |
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| TEACHING EXPERIENCE | | | |
| **BIOL 575: Field Ecology**, Instructor – *Wichita State University* | | Summer 2017 | |
| **ECOL 600: Community Ecology**, Discussion section – *Colorado State University* | | Spr. 2014; Spr. 2015 | |
| **LIFE 103: Biology of Organisms**, Laboratory instructor – *Colorado State University* | | Fall 2013; Fall 2014 | |
| **BZ 450: Plant Ecology**, Laboratory designer and instructor– *Colorado State University* | | Spring 2013 | |
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| GUEST LECTURES | | | |
| **ECOL 600: Community Ecology**  *Colorado State Univerisity*  “Multivariate statistics for use in ecological studies”  “Biodiversity and Ecosystem Function” | | | Both lectures in Spring 2014 & 2015 |
| **SOCR 100: General Crops**  *Colorado State University*  “Plant ecophysiology” | | | Fall 2014 |
| **ECOL 610: Ecosystem Ecology**  *Colorado State University*  “Ecological stoichiometry” | | | Fall 2012 |

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| FUNDING |  |
| **USDA – National Institute of Food and Agriculture**  Resilient Agroecosystems in a Changing Climate Challenge Area grant (co-PI) – Identifying mechanisms of rangeland drought resilience: management strategies for sustainable ecosystem health | **2018-22**  $1,100,000 |
| **USDA – National Institute of Food and Agriculture**  Conference grant (co-PI) **-** Global patterns of grazer effects on plant biodiversity: the role of dominant plant species | **2018**  $43,000 |
| **National Science Foundation**  RAPID grant (Senior Scientist) – Assessing interactions of a recent extreme drought with grazing impacts on plant community structure and function in Kruger National Park, South Africa | **2017-18**  $65,000 |
| **National Science Foundation – Department of Environmental Biology**  Long Term Ecological Research Network (Senior Scientist) – “Climate variability at dryland ecotones” | **2017-23**  $5,400,000 |
| **Long Term Ecological Research Network Communications Office**  LTER Synthesis Working Group (co-PI) – “Integrating plant community and ecosystem responses to chronic global change drivers: Toward an explanation of patterns and improved global predictions” | **2016-18**  $78,000 |
| **Department of Biology, Colorado State University** | **2015** |
| Travel award | $995 |
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| **Department of Biology, Colorado State University**  Travel award | **2014**  $945 |
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| **Graduate Degree Program in Ecology, Colorado State University** | **2013** |
| Graduate student research grant (PI) | $1,890 |
| “Grassland responses to altered precipitation patterns across the Great Plains: disentangling the direct effects of precipitation from the indirect effects of N availability.” |  |

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| TALKS |
| **Wilcox, K.R.**, Tredennick, A.T., Koerner, S.E. **2017**. Asynchrony among local communities stabilizes ecosystem function of metacommunities. Invited talk for oral session, Ecological Society of America Annual Meeting, Portland, OR. |
| **Wilcox, K.R. 2017**. Sensitivity of ecosystem function to climate change. Invited talk for *EcoMunch*, University of Oklahoma, Norman, OK. |
| **Wilcox, K.R.**, S. Collins, A. Knapp, M. Smith, Y. Luo. **2016**. Assessing regional patterns of carbon storage capacity. American Geophysical Union Fall Meeting, San Francisco, CA. |
| **Wilcox, K. R.** **2014**. “Sensitivity of productivity to altered precipitation regimes in three US grasslands.” Society for Ecosystem Restoration invited pub talk, Fort Collins, CO. |
| **Wilcox, K. R.** **2014**. “Productivity and carbon under chronic increases in productivity in a tallgrass prairie.” Mega-lab meeting. Colorado State University, Fort Collins, CO. |
| **Wilcox, K. R.,** J. Blair, S. Collins, M. Smith, A. Knapp. **2014**. “Assessing ecosystem sensitivity to alterations in precipitation regimes with two long-term data sets in US tallgrass prairie.” Contributed Oral Session. Ecological Society of America Annual Meeting, Sacramento, California |
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| **Wilcox, K. R. 2014**. “Science with scissors: letting questions drive our science and not the other way around.” Ignite presentation, Graduate Student Forum, Colorado State University, Fort Collins, Colorado. |
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| **Wilcox, K. R.**, J. von Fischer, J. Muscha, M. Petersen, A. Knapp. **2013**. “Sensitivity of productivity to precipitation regimes in three US grasslands.” Invited oral presentation, Ecological Society of America Annual Meeting, Minneapolis, Minnesota (August, 2013) and the Front Range Student Ecology Symposium, Fort Collins, Colorado (March, 2013). |
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| **Wilcox, K. R.**, M. Smith, K. La Pierre, A. Knapp. August **2012.** “Can stoichiometric homeostasis predict responses to climate change?” Contributed Oral Session. Ecological Society of America Annual Meeting, Austin, Texas |
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| **Wilcox, K. R.** and A. Knapp.September **2012**. “Grassland responses to changing precipitation amounts and patterns.” Invited oral presentation for Fort Keogh Livestock and Range Research Laboratory, Agricultural Research Station, Miles City, Montana. |
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| **Wilcox, K. R.**, M. Smith, S. Koerner, A. Knapp. June **2012**. “Local-scale plant species richness and the regional species pool.” Konza Prairie Long Term Ecological Research Station Workshop. Manhattan, Kansas. |
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| **Wilcox, K. R.**, and L. Raubeson. March **2008**. “Analysis and validation of the nuclear marker XDH for phylogenetic utility.” Symposium on University Research and Creative Expression. *Central Washington University*, Ellensburg, Washington. |

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| WORKING GROUPS WITH FORETHCOMING PRODUCTS |  |
| **CoRRE C2E** (communities to ecosystems) working group (co-leader) – Assessing impacts of altered community dynamics on ecosystem responses to global change drivers, and incorporating these impacts into ecosystem models | 2016-present |
| **INTERFACE** subgroup (member) – Shifting asymmetry in productivity responses to precipitation change. Model intercomparison project aimed towards improving predictions of ecosystem function in extreme wet and dry years | 2015-present |
| **PEcAn** working group (member) – Identifying bottlenecks and redundancies across ecosystem modeling efforts | 2015-present |
| **NEON** working group: Integrating NEON ANPP Data with Existing Long-term and Spatially Extensive Data Sets - Providing Context and Testing Theory (member) – Compilation of >150 ANPP and precipitation datasets | 2015-present |
| **CoRRE** (community responses to resource experiments) working group (member) – Development of data set including 100+ extensive individual plant species composition and primary productivity data sets. | 2012-2014 |

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| SERVICE AND OUTREACH | |
| Reviewer for *Ecology Letters, Proceedings of the Royal Society:B, Global Change Biology, New Phytologist, Ecosystems, J. of Applied Ecology, J. of Ecology, PLOS ONE, Plant and Soil, Functional Plant Biology, African J. of Range and Forage Science, Sustainability* |  |
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| *Editorial Advisory Board* | **2017-present** |
| Global Change Biology |  |
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| *Sustainability Leadership Fellow* | **2014-2015** |
| School of Global Environmental Sustainability |  |
| Colorado State University, Fort Collins, Colorado |  |
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| *Forum organizer* | **2014-2015** |
| Graduate Student Forum |  |
| Colorado State University, Fort Collins, Colorado |  |
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| *Graduate Student Representative* | **2013-2014** |
| Graduate Degree Program in Ecology Executive Committee |  |
| Colorado State University, Fort Collins, Colorado |  |
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| *Discussion panel organizer* | **2011** |
| Front Range Student Ecology Symposium |  |
| Colorado State University, Fort Collins, Colorado |  |
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