Kyle A. Palmquist

Curriculum Vitae

Department of Biological Sciences
1 John Marshall Drive
Marshall University
Huntington WV, 25755

Email: palmquist@marshall.edu
Phone: 304-696-3987
Website: http://www.kylepalmquist.org

EDUCATION

2014 Ph.D. in Ecology, University of North Carolina at Chapel Hill, NC
2006 B.S. in Biology, Environmental Studies minor, *magna cum laude*, College of Charleston, SC

PROFESSIONAL EMPLOYMENT

2019 – present: Assistant Professor, Marshall University, Department of Biological Sciences, Huntington, WV

2014 – 2018: Postdoctoral Research Associate and Adjunct Instructor, University of Wyoming, Department of Botany, Laramie, WY

2014: Adjunct Instructor, High Point University, Department of Biology, High Point, NC, Introduction to Biology and Environmental Science Labs

GRANTS AND OTHER FUNDING (Total awarded since 2019: $194,833, 90% external)

Grants Awarded

Federal and Regional Grants

2022 – 2024	US Fish and Wildlife Service, "Identifying sustainable grazing regimes for the 21st century that prevent annual grass invasion to maintain wildlife habitat across the big sagebrush biome" (role: co-PI; funds awarded Spring 2022 to Spring 2024)	$44,016
2021 – present	Department of the Navy, MCRD Parris Island, SC, "Vegetation survey and assessment of vegetation vulnerability to sea-level rise" (role: PI)	$89,817
2018 – 2021	USGS Climate Adaptation Science Center, "Big sagebrush plant community response to wildfire and invasive annual grasses in the 21st century" (role: PI)	$200,000
2017	USGS, "Modeling the response of big sagebrush plant communities to altered climate and disturbance" (role: co-PI)	$24,000

State Grants

2021 – present	WV NASA Space Grant Consortium, Research Initiation Grant, "Data integration for red spruce management: using NASA products to resolve scale mismatches and produce an updated red spruce map" (role: co-PI)	$20,000
2020 – 2021	WV NASA Space Grant Consortium, Graduate Student Fellowship to Maggie England, "The future of the big sagebrush ecosystem: plant community response to wildfire and invasive annual grass in a changing climate" (role: mentor)	$12,000
2019 – 2020	WV NASA Space Grant Consortium, Research Seed Grant, "Quantifying the vulnerability of longleaf pine woodlands to drought" (role: PI)	$10,000

Local Grants and Travel Grants

2021	Faculty Summer Research Award, Marshall U	$2,000
2021	NASA WVSGC Research Enhancement Award, Marshall U	$500
2021	Creative Discovery Scholar and Undergraduate Research Scholar Award to Cassie Bacon, Marshall U, "Characterizing plant biodiversity and fire regimes in West Virginia shortleaf pine stands" (role: mentor)	$5,000
2021	Creative Discovery Scholar and Undergraduate Research Scholar Award to Khyla Johnson, Marshall U, "Effects of prescribed fire on the understory of Eastern oak forests" (role: mentor)	$2,500
2020	Creative Discovery Scholar and Undergraduate Research Scholar Award to Aria Searles, Marshall U, "Quantifying the vulnerability of longleaf pine woodlands to drought" (role: mentor)	$2,500
2020	Faculty Summer Research Award, Marshall U	$2,000
2020	NASA WVSGC Research Enhancement Award, Marshall U	$1,000
2019	Faculty Summer Research Award, Marshall U	$2,000
2019	ADVANCE Path Forward Travel Grant, Marshall U	$1,000
2019	Quinlan Travel Grant, Marshall U	$500
2016	WWISE travel grant, Wyoming-EPSCoR, U of Wyoming	$1,000
2015	Biodiversity Institute, U of Wyoming, "Soil water dynamics and plant biodiversity in big sagebrush ecosystems across space" (role: PI)	$50,000
2015	WWISE travel grant, Wyoming-EPSCoR, U of Wyoming	$1,600
2015	INBRE Bioinformatics Training Travel Grant, U of Wyoming	$1,800
2015	University of Basel, Switzerland, "Albedo modification impact on global temperate dryland ecosystem water balance" (role: co-PI)	$73,612
2014	International Association for Vegetation Science, Young Scientist Travel Award	$2,300
2013	Graduate Professional School Travel Award, U of North Carolina Chapel Hill	$400
2013	Dr. William Coker Fellowship, U of North Carolina Chapel Hill	$11,500
2013	Alma Holland Beers Scholarship, U of North Carolina Chapel Hill	$1,500
2013	North Carolina Native Plant Society Shinn Grant	$1,000
2013	Graduate Student Transportation Grant, U of North Carolina Chapel Hill	$250
2012	Alma Holland Beers Scholarship, U of North Carolina Chapel Hill	$1,500
2012	Dr. William Coker Fellowship, U of North Carolina Chapel Hill	$1,500
2012	Caldwell Travel Scholarship, U of North Carolina Chapel Hill	$500
2011	Dr. William Coker Fellowship, U of North Carolina Chapel Hill	$1,850
2010	Alma Holland Beers Scholarship, U of North Carolina Chapel Hill	$2,950
2008	Mrs. Coker Botany Fellowship, U of North Carolina Chapel Hill	$20,000
2005	Student Undergraduate Research Fellowship (SURF), "Effects of irrigation timing and water quality on cotton physiology and development, College of Charleston	$5,000

<u>Grants In Review</u>

2022 – 2024	USGS North-Central Climate Adaptation Science Center, "Interactive effects of climate change and livestock grazing on plant communities within large intact big sagebrush landscapes" (Regional, role: co-PI)	$101,291

Grants In Preparation

2022 National Science Foundation, Division of Environmental Biology, Population and Community Ecology Cluster, "Quantifying the feedbacks of interacting warming-Driven disturbances to ecosystem structure and function in fire-dependent woodlands" (Federal, role: PI, submission planned March 2022) $997,352

2021 Marshall University White Paper for 2022 Research Challenge Grant, "Using data analytics and ecological modeling to investigate the impacts of climate and land-use changes on West Virginia biodiversity" (State, role: co-PI, submission planned August 2022) $1,300,000

Grants Declined

2021 WV NASA Space Grant Consortium, "Status of shortleaf pine vegetation in WV: regeneration, biodiversity, and fire history" (State, role: PI) $10,000

2020 Department of Energy, "Quantifying the feedbacks of interacting warming-driven disturbances to ecosystem structure and function in fire-dependent woodlands" (Federal, role: PI) $997,352

2020 RII Track-1 Letter of Intent, "Biodiversity in the Anthropocene: Impacts of landscape change on ecosystem structure and function in West Virginia" (State, role: co-PI)

2020 USGS State Water Resources Research Institute, "Red spruce plant community responses to climate change over the last two decades" (State, role: PI) $59,510

2019 WV NASA Space Grant Consortium, Graduate Student Fellowship – Rebekah Shupe, "Understanding how prescribed fire affected *Quercus* (oak) forests along a soil moisture gradient" (State, role: mentor) $12,000

PUBLICATIONS

§ undergraduate student author, * graduate student author, † authors contributed equally

Peer-reviewed Publications

2021 Smith, A.J.*, D.R. Schlaepfer, **K.A. Palmquist**, I.C. Burke & W.K. Lauenroth. Allometric modeling of bunchgrasses in big sagebrush plant communities. Rangeland Ecology and Management 79: 77-86. https://doi.org/10.1016/j.rama.2021.07.009

2021 **Palmquist, K.A.**, D.R. Schlaepfer, R.R. Renne*, S.C. Torbit, K.E. Doherty, T.E. Remington, G. Watson, J.B. Bradford & W.K. Lauenroth. Divergent climate change effects on widespread dryland plant communities driven by climatic and ecohydrological gradients. Global Change Biology 27: 5169-5185. https://doi.org/10.1111/gcb.15776

2020 Bradford, J.B., D.R. Schlaepfer, W.K. Lauenroth & **K.A. Palmquist.** Robust ecological drought projections for drylands in the 21st century. Global Change Biology 26(7): 3906-3919. https://doi.org/10.1111/gcb.15075

2020 Jordan, S.E.*, **K.A. Palmquist**, J.B. Bradford & W.K. Lauenroth. Soil water availability shapes species richness in mid-latitude shrub steppe plant communities. Journal of Vegetation Science 31(4): 646-657. https://doi.org/10.1111/jvs.12874

2019 Renne, R.R.*, D.R. Schlaepfer, **K.A. Palmquist**, J.B. Bradford, I.C. Burke & W.K. Lauenroth. Soil and stand structure explain shrub mortality patterns following global change-type drought and extreme precipitation. Ecology 100(12): e02889. https://doi.org/10.1002/ecy.2889

2019 Bradford, J.B., D.R. Schlaepfer, W.K. Lauenroth, **K.A. Palmquist**, J. Chambers, J. Maestas & S. Campbell. Climate-driven shifts in soil temperature and moisture regimes suggest opportunities to enhance assessments of dryland resilience and resistance. Frontiers in Ecology and Evolution 7: 358 (*invited paper*). https://doi.org/10.3389/fevo.2019.00358

2019 Lindquist, L.W.**§**, **K.A. Palmquist**, S.E. Jordan* & W.K. Lauenroth. Impacts of climate change on groundwater recharge in Wyoming big sagebrush ecosystems are contingent on elevation. Western North American Naturalist 79(1): 4. https://doi.org/10.3398/064.079.0104

2019 Pennington, V.E.*, J.B. Bradford, **K.A. Palmquist** & W.K. Lauenroth. Patterns of big sagebrush plant community composition and stand structure in the western United States. Rangeland Ecology and Management 72(3): 505-514. https://doi.org/10.1016/j.rama.2018.11.013

2018 **Palmquist, K.A.**, T.E. Martyn*, D.R. Schlaepfer, J.B. Bradford & W.K. Lauenroth. STEPWAT2: an individual-based model for exploring the impact of climate and disturbance on dryland plant communities. Ecosphere 9(8): e02394. https://doi.org/10.1002/ecs2.2394

2018 Rottler, C.M.*, I.C. Burke, **K.A. Palmquist**, J.B. Bradford & W.K. Lauenroth. Current reclamation practices after oil and gas development do not speed up succession or plant community recovery in big sagebrush ecosystems in Wyoming. Restoration Ecology 26: 114-123. https://doi.org/10.1111/rec.12543

2018 Peet, R.K., **K.A. Palmquist**, T.R. Wentworth, M.P. Schafale, A.S. Weakley & M.T. Lee. Carolina Vegetation Survey: an initiative to improve regional implementation of the U.S. National Vegetation Classification. Phytocoenologia 48(2): 171-179 (*invited paper*). DOI:10.1127/phyto/2017/0168

2017 Pennington, V.E.*, **K.A. Palmquist**, J.B. Bradford & W.K. Lauenroth. Climate and soil texture influence patterns of forb species richness and composition in big sagebrush plant communities across their spatial extent in the western US. Plant Ecology 218: 957-970. DOI:10.1007/s11258-017-0743-9

2016 **Palmquist, K.A.**, D.R. Schlaepfer, J.B. Bradford & W.K. Lauenroth. Spatial and ecological variation in dryland ecohydrological responses to climate change: Implications for management. Ecosphere 7(11): 1-20. https://doi.org/10.1002/ecs2.1590

2016 Pennington, V.E.*, D.R. Schlaepfer, J.L. Beck, J.B. Bradford, **K.A. Palmquist** & W.K. Lauenroth. Sagebrush, greater sage-grouse, and the occurrence and importance of forbs. Western North American Naturalist 76(3): 298-312. https://doi.org/10.3398/064.076.0307

2016 **Palmquist, K.A.**, D.R. Schlaepfer, J.B. Bradford & W.K. Lauenroth. Mid-latitude shrub steppe plant communities: Climate change consequences for soil water resources. Ecology 97(9): 2342-2354. https://doi.org/10.1002/ecy.1457

2016 Lopez, B.L., K.R. Burgio, M.B. Carlucci, **K.A. Palmquist**, A. Parada, V.P. Weinberger & A.H. Hulbert. A new framework for inferring community assembly processes using phylogenetic information, relevant traits, and environmental gradients. One Ecosystem 1 (e9501): 1-24. https://doi.org/10.3897/oneeco.1.e9501

2016 **Palmquist, K.A.**, R. K. Peet & S.C. Carr. Xeric longleaf pine vegetation of the Atlantic and East Gulf Coast Coastal Plain: an evaluation and revision of associations within the U.S. National Vegetation Classification. Proceedings of the US National Vegetation Classification 1(1): 1-70. https://proceedings.usnvc.org/articles/57

2015 Mitchell, S.M, **K.A. Palmquist**, S. Cohen & N.L. Christensen. Patterns of vegetation composition and diversity in pine-dominated ecosystems of the Outer Coastal Plain of North Carolina: Implications for ecosystem restoration. Forest Ecology and Management 356: 64-73. https://doi.org/10.1016/j.foreco.2015.07.035

2015 Martyn, T.*, C.W. Beltz*, **K.A. Palmquist**, V.E. Pennington*, C.M. Rottler* & W.K. Lauenroth. Daubenmire versus line-point intercept: a response to Thacker et al. (2015). Rangelands 37(4): 158-160. https://doi.org/10.1016/j.rala.2015.05.004

2015 **Palmquist, K.A.**, R.K. Peet & S.R. Mitchell. Scale-dependent responses of longleaf pine vegetation to fire frequency and environmental context across two decades. Journal of Ecology 103: 998-1008. https://doi.org/10.1111/1365-2745.12412

2014 **Palmquist, K.A.**, R.K. Peet & A.S. Weakley. Changes in plant species richness following reduced fire frequency and drought in one of the most species-rich savannas in North America. Journal of Vegetation Science 25: 1426-1437. https://doi.org/10.1111/jvs.12186

2014 Coyle, J.R.†, F.W. Halliday, B.E. Lopez, **K.A. Palmquist**, P.A. Wilfahrt & A.H. Hurlbert. Using trait and phylogenetic diversity to evaluate the generality of the stress-dominance hypothesis in eastern North American tree communities. Ecography 37: 1-13 (editor's choice). https://doi.org/10.1111/ecog.00473

Manuscripts in Review or Revision

Renne, R.R.*, D.R. Schlaepfer, **K.A. Palmquist**, W.K. Lauenroth & J.B. Bradford. Estimating complex ecological variables at high resolution in heterogeneous terrain using a multivariate matching algorithm. Methods in Ecology and Evolution (*in review after revision*). https://ecoevorxiv.org/b2ux7/

Schlaepfer, D.R., W.K. Lauenroth, J.B. Bradford & **K.A. Palmquist**. Solar geoengineering may increase climate change droughts in drylands. Earth's Future (*in revision*).

Jordan S.E.*, **K.A. Palmquist**, I.G. Burke & W.K. Lauenroth. Livestock grazing reduces perennial grass abundance but does not affect composition in big sagebrush plant communities. Ecological Applications (*in revision*).

Saladyga, T.†, **K.A. Palmquist**† & C. Bacon§. Fire history and vegetation data reveal ecological benefits of recent high-severity fires in the Cumberland Mountains, West Virginia, USA. Fire Ecology (*in review*).

Holdrege, M.C.*, A. Kulmatiski, K.H. Beard & **K.A. Palmquist**. Precipitation intensification increases shrub dominance in arid, not mesic, ecosystems. Ecosystems (*in review*).

Manuscripts in Preparation

England, M.*, J.B. Bradford, R.R. Renne*, W.K. Lauenroth, D.R. Schlaepfer & **K.A. Palmquist**. The future of the big sagebrush ecosystem: plant community response to wildfire and invasive annual grass in a changing climate. Target journal: Global Change Biology.

England, M.*, J.B. Bradford, R.R. Renne*, W.K. Lauenroth, D.R. Schlaepfer & **K.A. Palmquist**. Effects of grazing on big sagebrush plant communities in a changing climate. Target journal: Ecological Applications.

Shupe, R.*, T.E. Hutchinson, A.C. Axel & **K.A. Palmquist**. The effects of fire on oak forest regeneration: a 25-year study. Target journal: Forest Ecology and Management.

Shupe, R.*, T.E. Hutchinson, K. Johnson§ & **K.A. Palmquist**. The long-term effects of prescribed fire on species richness and composition of the herbaceous layer in mixed-oak forests. Target journal: Plant Ecology.

Chenoweth, D.A.*, I.C. Burke, **K.A. Palmquist** & W.K. Lauenroth. Recovery of the dominant shrub species in a widespread mid-latitude dryland. Target journal: Rangeland Ecology and Management.

Book Chapters

2018 Reeves, M.C., M.E. Manning, J.P. DiBenedetto, **K.A. Palmquist**, W.K. Lauenroth, J.B. Bradford, & D.R. Schlaepfer. Effects of climate change on rangeland vegetation in the northern Rockies. In: J.E. Halofsky, J.E. and D.L. Peterson, eds. *Climate Change and Rocky Mountain Ecosystems*, Chapter 7, First edition. Springer International Publishing, Switzerland. Pages 97-114.

2014 Peet, R.K., **K.A. Palmquist** & S.M. Tessel. Herbaceous layer species richness of southeastern forests and woodlands: patterns and causes. In: F.S. Gilliam, ed. *The Herbaceous Layer in Forests of Eastern North America*, Chapter 10, Second edition. Oxford University Press, New York, New York. Pages 255-276.

Non-peer Reviewed Publications

2022 **Palmquist, K.A.**, R.R. Renne*, M.E. England*, D.R. Schlaepfer, W.K. Lauenroth & J.B. Bradford, J. High-resolution maps of projected future responses of big sagebrush plant community biomass to wildfire and invasive annual grasses using multivariate matching algorithms: U.S. Geological Survey data release, https://doi.org/10.5066/P9HRDJ3Y. Note: link will become active in April 2022.

2022 **Palmquist, K.A.**, R.R. Renne*, D.R. Schlaepfer, W.K. Lauenroth & J.B. Bradford. High-resolution maps of projected big sagebrush plant community biomass for 52 future climate scenarios using multivariate matching algorithms: U.S. Geological Survey data release, https://doi.org/10.5066/P9DR9G1Y. Note: link will become active in April 2022.

2022 Fridley, J.D & **K.A. Palmquist**. Herbaceous Vegetation, Species Richness in. Encyclopedia of biodiversity, 3rd Edition (*submitted, invited contribution*).

2021 Renne, R.R.*, **K.A. Palmquist**, D.R. Schlaepfer, W.K. Lauenroth & J.B. Bradford. High-resolution maps of big sagebrush plant community biomass using multivariate matching algorithms: U.S. Geological Survey data release. https://doi.org/10.5066/P9MNKWS4.

2016 Tessel, S.M., **K.A. Palmquist** & R.K. Peet. Species-Area Relationships. In Oxford Bibliographies Online: Ecology. Ed. David Gibson. New York: Oxford University Press. DOI: 10.1093/OBO/9780199830060-0147.

TEACHING EXPERIENCE

2022Sp, ‘20F	Graduate Seminar I (BSC 660), Marshall U, 2 credits, 2 contact hours
2022Sp	Guest lecture in BSC 416/516 Plant Taxonomy on collecting and identifying plants for research purposes, Marshall U
2021F, ‘20Sp, ‘19F	Principles of Ecology lecture and lab (BSC 320 101 & 102), Marshall U, 4 credits, 9 contact hours
2021Sp	Thesis (BSC 681), Marshall U

2021Sp, ‘19Sp	Plant Ecology lecture and lab (BSC 430/530), Marshall U, 4 credits, 6 contact hours
2020F	Graduate Seminar II (BSC 662), Marshall U, 1 credit, 2 contact hours
2020F	Sp Tp: Terrestrial Ecosystem Ecology lecture (BSC 480/581), Marshall U, 3 credits, 3 contact hours
2019F	Guest lecture in BSC 120 Principles of Biology Honors on career pathways in ecology, Marshall U
2016F	Terrestrial Ecosystem Ecology lecture, U of Wyoming, 3 credits, 3 contact hours
2015F	Vegetation Ecology lab, U of Wyoming, 1 credit, 3 contact hours
2014Sp	Introduction to Biology lab, High Point University, 1 credit, 3 contact hours
2014Sp	Introduction to Environmental Science lab, High Point University, 1 credit, 3 contact hours

TEACHING PRESENTATIONS

Peckham, R., **K. Palmquist** & R. Rabe. Communicating climate change, locating race in journalism, and other challenges in teaching communication fluency. Marshall University. (February 11, 2022).

Peckham, R., R. Rabe, J. Ruff, J. Maxwell, B. Eng, M. Allenger, **K. Palmquist** & T. Chowdhury. An interdisciplinary look at teaching communication fluency. iPED Conference, Marshall University. Virtual. (May 5, 2021).

STUDENT MENTORING

Master’s Students

2022 – present	Cody Goodson, MS in Biological Sciences, Marshall U
2022 – present	Moses Shafer, MS in Biological Sciences, Marshall U
2019 – present	Maggie England, MS in Biological Sciences, Marshall U, The future of the big sagebrush ecosystem: plant community response to grazing, wildfire, and invasive annual grass in a changing climate
2019 – 2021	Rebekah Shupe, MS in Biological Sciences, Marshall U, The effects of fire on oak-forest plant communities along soil moisture gradients: a 25-year study
2015 – 2018	Co-adviser, Samuel Jordan’s MS in Forestry and Environmental Studies, Yale U, Impacts of grazing and ecohydrology on plant biodiversity patterns in big sagebrush ecosystems

Undergraduates

2021F	Matthew Roswall, Senior Capstone in Biological Sciences, Marshall U
2021Su	Mary Doherty, Senior Capstone in Biological Sciences, Marshall U
2021Su	Cassie Bacon, Internship in Natural Resources and the Environment, Marshall U
2021Sp	Khyla Johnson, Senior Capstone in Biological Sciences, Marshall U
2020F	Jordan Bowman, Senior Capstone in Biological Sciences, Marshall U
2020F	Aria Searles, Senior Capstone in Biological Sciences, Marshall U
2019Su	Reyna Abreu-Vigil, BS in Natural Resources and the Environment, Marshall U
2019Su	Moses Shafer, BS in Natural Resources and the Environment, Marshall U
2019	Frederick Pierson, BS in Computer Science, Marshall U
2019	Chandler Hakaup, BS in Computer Science, U of Wyoming

2016 – 2018 Lukas Lindquist, BS in Environmental Science, U of Wyoming

Graduate Student Committee Member

2021 – present Zachary Shamblin, MS in Biological Sciences, Marshall U
2021 – present Hal Guthrie, MS in Biological Sciences, Marshall U
2021 – present Anna McCallum, MS in Biological Sciences, Marshall U
2020 – present Madeline Thompson, MA in Biological Sciences, Marshall U
2020 – present Beth Stepp, MA in Biological Sciences, Marshall U
2019 – present Fen Annarino, MS in Biological Sciences, Marshall U
2019 – present Katie Biggert, MS in Biological Sciences, Marshall U
2019 – present Martin Holdrege, Ph.D. in Ecology, Utah State U
2019 – present Joanna Spooner, Ph.D. in Ecology, U of North Carolina Chapel Hill

INVITED PRESENTATIONS

* graduate student author

Palmquist, K.A., J.B. Bradford, M.E. England*, W.K. Lauenroth, D.R. Schlaepfer, R. Renne*, K. Doherty, S. Torbit & G. Watson. Big sagebrush plant community response to wildfire and cheatgrass invasion in a changing climate. Northwest Regional Invasive Species and Climate Change (RISCC) Network Symposium. Virtual. (September 15, 2021)

Palmquist, K.A. Community assembly and longleaf pine plant biodiversity across space and time. The Jones Center Seminar Series. Newton, GA. (July 1, 2021)

Palmquist, K.A. Individual-based modeling as a tool to quantify the interacting effects of climate change and disturbances on plant communities over large geographic areas. Data Science Seminar Series, Marshall University. Virtual. (April 21, 2021)

Palmquist, K.A. Vulnerability of dryland plant communities to climate change and disturbance in the 21st century. Department of Biological Sciences Seminar Series, University of Alberta. Virtual. (April 16, 2021)

Palmquist, K.A. Vulnerability of dryland plant communities to climate change and disturbance in the 21st century. Department of Biology Seminar Series, University of Nebraska at Omaha. Virtual. (November 18, 2020)

Palmquist, K.A. Response of big sagebrush plant communities to climate change, grazing, and cheatgrass throughout the 21st century. USGS Climate Adaptation Science Centers, Climate Change Science and Management Webinar Series. (September 23, 2020)

Palmquist, K.A. Emerging vulnerabilities of dryland plant communities to climate change and livestock grazing throughout the 21st century. Department of Biology Seminar Series, Miami University of Ohio. Oxford, OH. (October 10, 2019)

Palmquist, K.A. Plant biodiversity and climate change impacts in temperate ecosystems. US Forest Service Northern Research Station Seminar Series. Delaware, OH. (April 21, 2019)

Palmquist, K.A. How high-performance computing can benefit ecological research at the University of Wyoming. Advanced Research Computing Center workshop at the University of Wyoming. Laramie, WY. (June 17, 2017)

Palmquist, K.A. & R.K. Peet. Small-scale species richness in longleaf pine savannas: patterns and drivers. Botanical Society of America Annual Meeting. New Orleans, LA. (July 27, 2013)

Palmquist, K.A., R.K. Peet, J.M. White & K. Israel. Long-term vegetation change in contrasting North Carolina ecosystems. Ecological Society of America Annual Meeting. Portland, Oregon. (August 2012)

Palmquist, K.A., R.K. Peet & A.S. Weakley. Species richness patterns, compositional shifts, and turnover in the longleaf pine ecosystem across 18 years. College of Charleston Biology Lecture Series. Charleston, SC. (2011)

ORAL PRESENTATIONS AT SCIENTIFIC CONFERENCES

§ undergraduate student author, * graduate student author (9 additional presentations as a postdoc and 4 additional presentations as a graduate student not shown)

2021 Saladyga T., **K. Palmquist** & C. Bacon§. Divergence in the fire history of two mixed pine-oak forests: implications for prescribed fire and forest resiliency in the Central Appalachians. 9th International Fire Ecology and Management Congress, Virtual.

2021 **Palmquist, K.A.**, R.R. Renne*, D.R. Schlaepfer, J.B. Bradford & W.K. Lauenroth. Grazing and climate change interact to influence big sagebrush plant community functional type composition. Ecological Society of America Annual Meeting, Virtual.

2021 Holdrege M.C.*, K. Beard, A. Kulmatiski & **K.A. Palmquist**. Response of sagebrush-dominated ecosystems to increased precipitation intensity. Ecological Society of America Annual Meeting, Virtual.

2021 **Palmquist, K.A.**, R. Peet, M. Schafale, S. Carr, T. Wentworth & A. Weakley. Dry-mesic longleaf pine vegetation of Atlantic and East Gulf Coast Coastal Plain: Vegetation classification and biogeography. Association for Southeastern Biologists Annual Meeting, Virtual.

2021 Shupe, R.*, T.F. Hutchinson, A. Axel & **K. Palmquist**. The effect of fire on oak-forest regeneration: A 25-year study. Association for Southeastern Biologists Annual Meeting, Virtual.

2020 **Palmquist, K.A.**, R.R. Renne*, D.R. Schlaepfer, J.B. Bradford & W.K. Lauenroth. Grazing and climate change interaction to shape sagebrush plant community composition. Ecological Society of America Annual Meeting, Virtual (**cancelled due to COVID-19**).

2019 Jordan, S.E.*, **K. Palmquist**, I.C. Burke & W.K. Lauenroth. Livestock grazing reduces grass cover but does not affect richness or composition in big sagebrush communities. Ecological Society of America Annual Meeting, Louisville, KY.

2019 **Palmquist, K.A.**, J.B. Bradford, D.R. Schlaepfer, R.R. Renne* & W.K. Lauenroth. Climate change impacts on shrub steppe plant communities vary with environmental context and geography. Ecological Society of America Annual Meeting, Louisville, KY.

2019 Schlaepfer, D.R., W.K. Lauenroth, J.B. Bradford & **K. Palmquist**. Unexpected heterogeneity and more severe droughts in parts of drylands globally under solar geoengineering. Ecological Society of America Annual Meeting, Louisville, KY.

2019 **Palmquist, K.A.** & R.K. Peet. Plant species richness patterns are shaped by multiple ecological processes across space in the longleaf pine ecosystem. Association for Southeastern Biologists Annual Meeting, Memphis, TN.

POSTER PRESENTATIONS AT SCIENTIFIC CONFERENCES

§ undergraduate student author, * graduate student author

2021 Searles, A.§ & **K.A. Palmquist**. Quantifying the effects of drought on longleaf pine plant communities. Association for Southeastern Biologists Annual Meeting, Virtual.

2020 Shupe, R.*, T.F. Hutchinson & **K. Palmquist**. The effects of prescribed fire on oak-forest plant communities over 25 years. Ecological Society of America Annual Meeting, Virtual.

2020 England, M.E.*, D.R. Schlaepfer, J.B. Bradford, W.K. Lauenroth & **K.A. Palmquist**. The future of the big sagebrush ecosystem: plant community response to wildfire and invasive annual grass in the 21st century. Ecological Society of America Annual Meeting, Virtual.

2020 Shupe, R.*, T.F. Hutchinson & **K.A. Palmquist**. The effects of prescribed fire on oak-forest plant communities over 25 years. Association for Southeastern Biologists Annual Meeting, Jacksonville, FL (**cancelled due to COVID-19**).

AWARDS AND NOMINATIONS

2021 Invitation to participate: North-Central Regional Invasive Species and Climate Change working group

2020 Nomination: International Association for Vegetation Science Vegetation Classification Working Group

2019 Nomination: International Association for Vegetation Science, Council of 40 persons

2016 Own It! Award Nominee, given by WY EPSCoR to honor outstanding women in STEM fields

2013 Eugene P. Odum Award, given by the SE Chapter of the Ecological Society of America for the best oral presentation on ecological research given by a student at the Association for Southeastern Biologists Annual Meeting, $500

2012 University of North Carolina Impact Award, recognizes graduate students whose research contributes to the educational, economic, physical or social well-being of the citizens of North Carolina, $500

PROFESSIONAL SERVICE

2021 – present Guest Associate Editor, Forests, “Applied Forest Classification”

2021 – present Research Committee Member, Central Appalachian Spruce Restoration Initiative

2020 – present Associate Editor, Plant Ecology

2020 – present Member, Ecological Society of America Vegetation Classification Panel

2020 – present Member at Large, Southern Appalachian Botanical Society Council

2019 – present Associate Editor, Southeast Coastal Plain Region, US National Vegetation Classification Review Board

2021 Session Organizer, “Short Course 5: Quantitative Analysis in Plant Community Ecology using R”, Ecological Society of America Annual Meeting, Virtual

2021 Session Organizer, “Joint Mixer of the Vegetation Section, ESA Vegetation Panel and North American Section of IAVS and Tribute to Michael G. Barbour and Eddy van der Maarel”, Ecological Society of America Annual Meeting, Virtual

2019 – 2021 Chair, Vegetation Section of the Ecological Society of America

2019 – 2021 Council Member, Ecological Society of America

2020 Session Organizer, "Vegetation Section and ESA Vegetation Panel Mixer", Ecological Society of America Annual Meeting, Virtual

2020 Session Co-organizer, "Inspire: 21st-century Trajectories of Big Sagebrush Plant Communities", Ecological Society of America Annual Meeting, cancelled due to COVID-19

2017 – 2019 Vice Chair, Vegetation Section of the Ecological Society of America

2015 – 2017 IAVS Young Scientist's Section Steering Committee

DEPARTMENTAL, COLLEGE, AND UNIVERSITY SERVICE

2020 – 2022 Faculty Senator, Department of Biological Sciences, College of Science, Marshall U

2020 – 2022 Faculty Senate Liaison on the Research Committee, Marshall U

2020 – present Chair, Department of Biological Sciences Scholarships and Grants Committee, Marshall U

2020 – present Chair, Department of Biological Sciences Greenhouse Subcommittee, Marshall U

2020 – present Member, Campus Sustainability Committee, Marshall U

2019 – present Co-chair, Department of Biological Sciences Seminar Series, Marshall U

2019 – present Member, Department of Biological Sciences Curriculum Committee, Marshall U

2019 – present Member, Campus Tree Committee, Marshall U

MANUSCRIPT AND CONFERENCE REVIEWS

2022 Reviewer, Restoration Ecology (1)

2021 Reviewer, Canadian Journal of Forest Research (1), Journal of Ecology (2), Journal of Vegetation Science (1)

2020 Reviewer, Ecological Monographs (2), Global Change Biology (1), Global Ecology and Biogeography (1), Restoration Ecology (1), Vegetation Classification and Survey (1)

2020 Reviewer, Ecological Society of America Late-breaking Poster Abstracts

2020 Reviewer, Ecological Society of America Contributed Abstracts

2020 Reviewer, Ecological Society of America Sessional Proposals

2019 Reviewer, Global Ecology and Biogeography (1), Vegetation Classification and Survey (1)

2015, 2018 – 2021 Judge, Tom Damman Award, the best student oral presentation in Vegetation Science at the annual meeting of the Ecological Society of America

2015, 2019 – 2020 Judge, Murray F. Buell Award and E. Lucy Braun Award, the best student oral presentation and best student poster presentation at the annual meeting of the Ecological Society of America

2014 – 2018 Reviewer, Journal of Vegetation Science (7), Western North American Naturalist (4), Plant Ecology (2), American Journal of Botany (1), Community Ecology (1), Ecology (1), Fire Ecology (1), Functional Ecology (1), Journal of Ecology (1), Landscape Ecology (1), Restoration Ecology (1), Southwestern Naturalist (1), Wetlands (1)

2014 Judge, Quatterman-Keever Award, the best student poster in ecology at the annual meeting of the Association for Southeastern Biologists

GRANT REVIEWS

2020 Reviewer, USGS Climate Adaptation Science Center proposals

2017 External reviewer for NSF, Division of Environmental Biology

PROFESSIONAL MEMBERSHIPS

Ecological Society of America – Member of Southeastern Chapter, Early Career Ecologist Section, and Vegetation Section

International Association for Vegetation Science

Association of Southeastern Biologists

Southern Appalachian Botanical Society