Jason Philip Martina

Associate Professor, Department of Biology
Texas State University · San Marcos, TX 78666
Tel: 512.245.0565 · Cell: 815.355.6814
jpmartina@txstate.edu · https://martinalab.weebly.com

Education

Ph.D. in Plant Biology and Ecology, Evolutionary Biology and Behavior, 2012
Michigan State University, East Lansing, MI.
Co-Advised by Dr. Stephen K. Hamilton and Dr. Merritt R. Turetsky (University of Guelph)

M.S. in Biological Sciences, 2006
Northern Illinois University, DeKalb, IL.
Advised by Dr. Carl N. von Ende

B.S. in Biological Sciences (*magna cum laude*), 2004
Northern Illinois University, DeKalb, IL.

Professional Experience

2025 –	**Associate Professor**, Department of Biology, Texas State University, San Marcos TX.
2019 – 2025	**Assistant Professor**, Department of Biology, Texas State University, San Marcos TX.
2016 – 2020	**Adjunct Assistant Professor**, Department of Ecosystem Science and Management, Texas A&M University
2016 – 2019	**Program Coordinator**, Ecology and Evolutionary Biology Doctoral Program and Applied Biodiversity Science Program, Texas A&M University
2015 – 2017	**Visiting Scholar**, Department of Biology, Trinity University, TX.
2014 – 2016	**Assistant Professor** of Biology, Department of Mathematics and Sciences, Our Lady of the Lake University, TX.
2012 – 2014	**Postdoctoral Research Fellow** with Dr. Deborah Goldberg (Ecology and Evolutionary Biology) and Dr. William Currie (Natural Resources and Environment), University of Michigan
2008 – 2011	**Teaching Assistant**, Department of Plant Biology, Michigan State University
2007 – 2010	**Science To Achieve Results (STAR) Fellow**, US EPA
2006 – 2008	**Research Assistant**, Department of Plant Biology, Michigan State University
2004 – 2006	**Teaching Assistant**, Department of Biological Sciences, Northern Illinois University
2004	**Restoration Intern**, McHenry County Conservation District, McHenry, IL.

Awards, Grants, and Fellowships

Pending Proposals:

- Texas OneGulf-Harte Research Institute, “Monitoring Seagrass Landscape Indicators using Aerial Drones along the Salinity and Freshwater Inflow Gradient of Lower Laguna Madre, Texas”, submitted August 2026. *Senior Personnel*
- NSF FIRE, “FIRE-MODEL: Unraveling the Invasive Fire Cycle: Quantifying Non-Native Grass Impacts on Great Plains Wildfire Dynamics”, submitted April 2026. *Principal Investigator*

- SARP-NFHP, “Enhancing aquatic vegetation for native fish and macrophyte conservation in the San Marcos River”, submitted January 2025. *Collaborator*

Funded Proposals:

- NASA Earth Action: Ecological Conservation, “Modeling optimized restoration for wild rice in Saginaw Bay, MI”, $656,427 ($97,276 to TXST). 2026-2029. *Co-Principal Investigator*
- NSF DISES, “Integrating ecosystem services and stakeholder preferences to improve outcomes on post-buyout land”, $738,000. ($270,000 to TXST). 2025-2027. *Co-Principal Investigator*
- TPWD Habitat and Angler Access Program, “Upper San Marcos River Aquatic Invasive Species Removal and Native Vegetation Repatriation”, $50,000. 2024-2025. *Co-Principal Investigator*
- TXST Run to R1 Postdoctoral Catalyst Program, “Improving predictions of grassland carbon, water, and nutrient cycling using an individual-based modeling approach”. $100,000. 2023-2025. *Principal Investigator*
- NASA OCEAN, “Integrating Systems Models and Remote Sensing to Explore Aquatic Ecosystem Vulnerability to Global Change in Lake Huron”. $749,428. 2021-2024. *Principal Investigator*
- Texas Parks and Wildlife Traditional Section 6, “Habitat assessment, monitoring and landowner outreach for *Leavenworthia texana* and *Physaria pallida*”. $99,292. 2021-2024. *Principal Investigator*
- TPWD Aquatic Invasive Species Research Grant, “Using remote sensing to map *Arundo donax* populations in Native Fish Conservation Areas throughout Texas to better understand causal factors of invasion and set management priorities”. $98,537. 2021-2023. *Principal Investigator*
- NASA Interdisciplinary Research in Earth Science Program, “Quantifying How Global Change and Land Use Legacies Affect Ecosystem Processes at the Land Water Interface Across the Great Lakes Basin”. $1,598,346. 2017-2021. *Co-Principal Investigator*
- EPA Great Lakes Restoration Initiative Program, “Implementing Adaptive Management and Monitoring for Restoration of Wetlands invaded by *Phragmites*.” $648,799. 2016-2018. *Participant in cross-institutional collaborative team funded by this award*.
- Michigan Invasive Species Grant Program, “Comprehensive Invasive *Phragmites* Management Planning”. $203,000. 2015-2018. *Co-Principal Investigator*
- University of Michigan Water Center Grant, “Assessing Ecosystem Services Provided by Restored Wetlands Under Current and Future Climate and Land-Use Scenarios”. $50,000. 2013-2014.
- EPA STAR Fellowship, “Effects of Plant Diversity and Functional Identity on Ecosystem Nitrogen Retention and Removal in Great Lakes Wetlands”. $110,000. 2007-2010.

Smaller grants and fellowships:

- U.S. Department of Agriculture, “Constraints of the Recruitment of an Invasive C4 in a Native C4 Grassland”, $7500. 2023-2024. *Principal Investigator*
- Texas State University Undergraduate Research Fellowship – Ryan Kridler ($1000)
- College of Natural Science, MSU, Dissertation Completion Fellowship 2011 ($6000)
- College of Natural Science, MSU, Dissertation Continuation Fellowship 2010 ($6000)
- EEBB Travel Grant, MSU, 2007-2012 (Total awarded: $2400)
- Paul Taylor Travel Grant, MSU, 2007-2011 (Total awarded: $3875)
- Long-Term Ecological Research (LTER) Small Grant, 2010 ($1500)
- MSU Graduate School Travel Grant 2008 and 2009 (Total awarded: $500)
- Biogeochemistry Environmental Research Initiative Summer Fellowship, 2007 and 2008 ($3000)
- Society of Wetland Scientists Research Grant, 2007 ($1000)
- Kellogg Biological Station Visiting Graduate Fellowship, 2007 ($2000)
- Northern Illinois University Fellowship, 2005-2006 ($6000)
- McHenry County Conservation District Research Grant, 2006 ($250)

Teaching and Mentorship:

- Certificate of Appreciation, 2022 Unity Graduation Celebration (TXST) – Sydney Scace
- Texas State University Teaching Award of Honor, 2020
- Department of Residence Life (MSU) Teaching Recognition, 2010

Refereed Papers *Submitted* or *In Review* (*co-first author, [G]denotes grad student, [U]denotes undergraduate student)

63. Yan, P., J.A. Catford, Y. Meng, Y. Yang, M. Ni, C.T. Caten, N. Neal, E. Borer, S. Li, E.W. Seabloom, I. Slette, J.D. Bakker, K.A. Bråthen, L.A. Brudvig, M.N. Bugalho, M.W. Cadotte, M.C. Caldeira, C. Carbutt, T.W. Crowther, K. Davies, I. Donohue, C. Dwyer, N. Eisenhauer, A. Eskelinen, N. Hagenah, S. Haider, Y. Hautier, E.I. Hersch-Green, A. Jentsch, S.O. Jimoh, I.S. Jónsdóttir, K.P. Kirkman, J.M.H. Knops, S.E. Koerner, L. Laanisto, L. Lannes, Y. Lekberg, M. Ma, A.S. MacDougall, P. Macek, **J.P. Martina**, H.M. Martinson, D. Matten, J. Millett, J.L. Moore, R. Muthukrishnan, R. Nelson, H. Olde Venterink, P.L. Peri, E.T. Pos, S.A. Power, X. Raynaud, Z. Ren, A.C. Risch, N.G. Smith, C. Veen, R. Virtanen, E. Waring, P. Zhang, K. Zhu, D. Li. Non-native plants erode the stabilizing effects of biodiversity. *Nature* (*Submitted*)

62. DeMalach, N., R. Salguero-Gomez, O. Hollander, J. Lucas, A.T. Strauss, T. Chaudhary, Y.A. Chung, J.K. McCarthy, B. Moreira, L. Petri, R. Thornley, I.J. Slette, E.T. Borer, E.W. Seabloom, J. Atkinson, K.H. Beard, L.A. Brudvig, C.P. Catano, J.A. Catford, A. Classen, A.T. Clark, C. Dwyer, C. Fenster, O. Godoy, O. Gross, E. Gusmán-Montalaván, W.S. Harpole, E. Hersch-Green, P. Holub, A. Jentsch, G. Kandlikar, K. Kirkman, S.E. Koerner, A. Kulmatiski, D. Li, A.S. MacDougall, P. Mariotte, **J.P. Martina**, P.A. Meglioli, J. Millett, L. O'Halloran, R. Ochoa-Hueso, R. Ogaya, B. Osborne, K.K. Patabendige, J. Penuelas, P. Peri, S.C. Pennings, A.C. Risch, N.J. Sanders, C. Stevens, L. Sullivan, P. M. Tognetti, D. Vélez-Mora, C. Wagg, C. Werner. Anthropogenic disturbance expands the climatic limits of annual plant dominance. *Nature Ecology and Evolution* (*In Revision*)

61. Jones, R, B Schamp, L Aarssen, C Arnillas, E Borer, J Bakker, P Graff, S Haider, **JP Martina**, P Peri, SA Power, C Roscher, E Seabloom, NG Smith, G Sonnier, D Ward. Height-biased compositional effects of nutrient enrichment and herbivore exclusion across 13 grassland communities. *Journal of Ecology* (*Submitted*)

60. Tang, Z, Y Lekberg, H An, JD Bakker, ET Borer, LA Brudvig, MN Bugalho, MC Caldeira, Q Chen, TW Crowther, CR Dickman, I Donohue, KJ Elgersma, A Eskelinen, N Hagenah, S Haider, Y Hautier, JA Henning, A Jentsch, SO Jimoh, KJ Komatsu, L Laanisto, M Li, AS MacDougall, P Macek, **JP Martina**, H Olde Venterink, PL Peri, SM Prober, AC Risch, C Roscher, EW Seabloom, CJ Stevens, R Virtanen, P Zhang, J Yang, Y Niu. Mycorrhizal affiliation underlies global grassland responses to nutrient enrichment. *PNAS* (*Submitted*)

59. Andraczek, K, DC Laughlin, A Weigelt, H Bruelheide, AB Bombo, Y Fan, A Fidelis, GT Freschet, J Hennecke, CC Howard, SO Jimoh, J Klimešová, L Mommer, T Ramalevha, F Siebert, SJ Tumber-Dávila, PB Adler, CA Arnillas, JD Bakker, E Borer, KA Bråthen, LA Brudvig, MY Buckley, MN Bugalho, MW Cadotte, MC Caldeira, C Carbutt, JA Catford, G Damasceno, CR Dickman, I Donohue, C Dwyer, N Eisenhauer, M Garbowski, LA Gherardi, N Hagenah, S Haider, WS Harpole, Y Hautier, E

Hersch-Green, N Hölzel, A Jentsch, X Jing, T Kadoya, VH Klaus, JMH Knops, KJ Komatsu, A Leakey, H Liu, AS MacDougall, **JP Martina**, H Martinson, RL McCulley, J Millett, L Neuenkamp, Y Niu, M Pärtel, PL Peri, AS Power, X Raynaud, AC Risch, C Roscher, J Rudgers, D Schellenberger Costa, E Seabloom, I Slette, NG Smith, C Stevens, DI Thompson, F van der Plas, J van Dijk, A Veeken, GF Veen, GM Wardle, L Yahdjian, J Zhang, J Bergmann. Climate influences how belowground traits regulate grassland biomass. *PNAS* (*Submitted*)

58. Fay, P., T. Chaudhary, R. Heckman, **J.P. Martina**, D. Rowley, W. Rogers, J. Yost. An exotic C4 grass competes for multiple nutrients in a mesic grassland plant community. *Ecosphere* (*In Review*)

57. Zhang, P, ET Borer, J Foo, Y Hautier, AS MacDougall, Y Lekberg, C Roscher, SA Power, JD Bakker, **JP Martina**, AC Risch, A Jentsch, M Liang, N Hagenah, MN Bugalho, S Haider, MC Caldeira, NG Smith, P Daleo, I Donohue, JMH Knops, KJ Komatsu, N Eisenhauer, S Bagchi, T Deola, SO Jimoh, PL Peri, M Spohn, JA Catford, WS Harpole, Z Ren, G Du, GM Wardle, C Veen, T Kadoya, SM Prober, M Smith, EW Seabloom. Dominance without identity: abundance ranks predict ecosystem stability and biodiversity. *Nature* (*In Review*)

56. Yang, Q, Y Buckley, AS MacDougall, JM Montoya, Y Hautier, SA Power, L Dee, WS Harpole, ET Borer, EW Seabloom, JD Bakker, MN Bugalho, MC Caldeira, S Campana, T Chaudhary, Q Chen, TW Crowther, K Davies, CR Dickman, ME DuPre, A Eskelinen, DS Gruner, N Hagenah, K Kirkman, **JP Martina**, JL Moore, J Morgan, PL Peri, E Pos, AC Risch, J Rudgers, M Tedder, S Shiratsuru, GF Veen, R Virtanen, GM Wardle, I Donohue. Long-term instability results from nutrient enrichment of global grasslands. *Nature* (*In Revision*)

55. Komatsu, K.J. *et al.* (123 co-authors) The prevalence and functional basis of codominance in global herbaceous ecosystems. *Science* (*Submitted)*

54. Niu, Y, L.A. Brudvig, M.W. Cadotte, J.D. Bakker, Z. Tang, I. Donohue, Y. Hautier, E.T. Borer, G.M. Wardle, P.B. Adler, J.M.H. Knops, S.M. Prober, E.W. Seabloom, **J.P. Martina**, T. Terry, N. Eisenhauer, C.J. Stevens, S.A. Power, S. Bagchi, J.A. Catford, P.L. Peri, A. MacDougall, N. Hagenah, C. Roscher, A.C. Risch, C. Estrada, C.R. Dickman, P. Macek, S.O. Jimoh, S. Haider, Y.M. Buckley, R.L McCulley, A. Eskelinen, C.M D'Antonio, E.S. Bakker, M.N. Bugalho, P. Zhang, H.O. Venterink, R. Laungani, C. Carbutt, M.C. Caldeira, Z. Ren, L. Hua, A. Jentsch. Herbivory and aridity interact to regulate eutrophication-driven declines of plant diversity in global grassland. *Nature Plants* (*In Revision*)

53. Thornley, RH, CM Hernández, M Christodoulou, E Borer, EW Seabloom, J Cant, J Millett, N DeMalach, C Dwyer, J Atkinson, KH Beard, LA Brudvig, R Casimiro-Soriguer Camacho, C Catano, JA Catford, YA Chung, AT Clark, O Godoy, E Gusmán-Montalván, WS Harpole, E Hersch-Green, P Holub, A Jentsch, K Kirkman, SE Koerner, A Kulmatiski, D Li, P Mariotte, **JP Martina**, R Ochoa-Hueso, R Ogaya, TH Parker, J Penuelas, PL Peri, L Petri, S Petrovick, CA Ray, S Richardson, AC Risch, C Roscher, L Shoemaker, I Slette, C Stevens, LL Sullivan, D Vélez-Mora, H Watkins, AA

Wolf, L Wu, A Hector, R Salguero-Gómez. Community complexity modulates the predictive power of demographic metrics on plant species resilience to disturbances in a distributed grassland experiment. *Ecology Letters* (*Submitted*)

52. Atkinson, J, JN Price, R Buitenwerf, NG Smith, E Ezekannagha, ET Borer, C Brown, LA Brudvig, YM Buckley, MN Bugalho, MC Caldeira, S Campana, C Carbutt, CR Dickman, I Donohue, N Eisenhauer, KJ Elgersma, A Eskelinen, M Garbowski, S Hader, N Hagenah, S Harpole, Y Hautier, A Jentsch, JMH Knops, SE Koerner, M Kohli, KJ Komatsu, L Laanisto, ADB Leakey, P Macek, M Ma, AS MacDougall, **JP Martina**, HM Martinson, RL McCulley, JW Morgan, M Pärtel, SC Pennings, PL Peri, S Power, SM Prober, Z Ren, AC Risch, M Sankaran, EW Seabloom, R Standish, M Tedder, R Virtanen, GM Wardle, EF Waring, G Wheeler, D Griffith, J-C Svenning. Nutrient enrichment and herbivore disrupt the climate-driven balance between C3 and C4 plants in grasslands. *Nature Communications* (*In Review*)

51. Rowley, D.W., K.C. Flynn, T. Chaudhary, P.A. Fay, **J.P. Martina**, M.C. Schantz, W.E. Rogers. Quantification of post-disturbance grassland diversity using UAV-based remote sensing. *Environmental Monitoring and Assessment* (*In Revision*)

50. Siciliano-Martina, L., M. Herod, G. Boyden, J. Hazell, **J.P. Martina.** Resource availability and belowground growth are associated with leaf fluctuating asymmetry in the clonal invasive grass *Arundo donax*. *Functional Ecology* (*In Review*)

49. Niu, Y, R. Dong, J.D. Bakker, Q. Chen, Y. Hautier, P. Adler, **J.P. Martina**, T. Terry, L.A. Biederman, N. Eisenhauer, P.L. Peri, C. Roscher, Z. Tang, A.C. Risch, R. Virtanen, M.C. Caldeira, S. Wanke, K.J. Komatsu, E.T. Borer, E.W. Seabloom, M.N. Bugalho, A. Eskelinen, C. Alberto Arnillas, G.M. Wardle, N. Hagenah, Q. Yu, Q. Yu, A. Jentsch. Global asymmetric grassland responses to precipitation extremes under nutrient enrichment. *Science Advances* (*In Review*)

48. [G]Fogel, B., A.A. Castellanos, P.S. Williamson, and **J.P. Martina**. Predicting current and future distributions of two endangered plant species to guide conservation efforts. *Ecosphere* (*In Revision*)

Refereed Papers Published (*co-first author, [G]denotes grad student, [U]denotes undergrad student)

47. Li, W, E Borer, E Seabloom, C Stevens, CA Arnillas, I Barrio, L Biederman, K Bråthen, Y Buckley, M Bugalho, M Caldeira, J Catford, Q Chen, M Crawley, C D'Antonio, K Davies, C Dickman, I Donohue, M DuPre, A Ebeling, N Eisenhauer, A Eskelinen, N Hagenah, S Haider, Y Hautier, E Hersch-Green, K Jamiyansharav, A Jentsch-Beierkuhnlein, I Jónsdóttir, J Knops, L Laanisto, A Lkhagva, **JP Martina,** H Martinson, Y Niu, D Orr, P Peri, E Pos, S Power, Z Ren, A Risch, C Roscher, N Smith, M Spohn, P Tognetti, C Veen, R Virtanen, G Wardle, H Young, J Bakker. 2026. Plant species responses to nutrient addition, but not to herbivore exclusion, strengthen over time in global grasslands. *Journal of Ecology* (*Accepted*)

46. Binder, S.B., E. Zavar, A. Greer, **J.P. Martina**, M. Nelan, A. Islam, P. Sharma, E. Brennan, R. Herberger, C. O'Connor. 2026. Cycles of Displacement: An initial examination of housed residents and floating populations on postbuyout land. *Frontiers in Climate* (*Accepted*)

45. Slette, IJ, EW Seabloom, CA Arnillas, JD Bakker, D Blumenthal, JA Catford, S Collins, N Eisenhauer, PA Fay, M Garbowski, S Haider, WS Harpole, KP Kirkman, JMH Knops, KJ Komatsu,

ADB Leakey, AS MacDougall, **JP Martina**, SA Power, AC Risch, C Roscher, MD Smith, M Tedder, ET Borer. 2026. Nutrient enrichment increases grassland biomass sensitivity to interannual precipitation variation. *Global Change Biology* (*Accepted)*

44. Elgersma, K.J., S. Aird, **J.P. Martina**, and D.E. Goldberg. 2026. Commentary: Field-based measurement tools to distinguish clonal *Typha* taxa and estimate biomass: a resource for conservation and restoration. *Frontiers in Plant Science* 17:1776560. doi: 10.3389/fpls.2026.1776560

43. Muraina, T.O., T. Niwu, S.O. Jimoh; R. Griffin-Nolan, L. Song, J. Chen, Y. Shi, A.A. Amisu, Q. Yu, M.D. Smith, A.K. Knapp, S.L. Collins, W. Luo, **J.P. Martina**. 2026. Resistance of soil carbon to isolated vs. recurrent drought in two semi-arid grasslands. *Oecologia* 208(2):19

42. Yahdjian, L, S. Campana, P. Tognetti, J. Alberti, P. Graff, C. Molina, E. Borer, E. Seabloom, S.M. Prober, A.S. MacDougall, A.C. Risch, J. Price, S.A. Power, I.C. Barrio, E. Hersch-Green, P.A. Fay, S. Bagchi, J.D. Bakker, D. Blumenthal, E. Boughton, C. Brown, M. Bugalho, M. Cadotte, M. Caldeira, C. Carbutt, J. Catford, Q. Chen, S. Collins, T. Crowther, C. D´Antonio, C.R. Dickman, M.E. DuPre, K.J. Elgersma, A. Eskelinen, N. Hagenah, Y. Hautier, A. Jentsch, J.M.H. Knops, **J.P. Martina**, R. McCulley, C. Stevens, L. Laanisto, L. O'Halloran, P. Peri, P. Macek, N.G. Smith, G. Sonnier, G.F. (Ciska) Veen, R. Virtanne. 2026. Insights on rangeland ecosystem services shaped by grazing and fertilisation from a global experimental network. *Frontiers in Ecology & Environment*, e70022

41. MacDougall, A, *et al*. (142 co-authors). 2026. The global extent of the grassland biome and implications for the terrestrial carbon sink. *Nature Ecology and Evolution* (*Accepted*)

40. [G]Rowley, D., P. Fay, **J.P. Martina**, [G]T. Chaudhary, J. Veldman, and W. Rogers. 2025. Soil nutrients mediate initial community assembly in a tilled grassland. *Applied Vegetation Science* 28(3), e70040

39. Muraina, T.O., A. Vitra, M. Probo, **J.P. Martina**, A. Buttler, P. Mariotte. 2025. Linking leaf economic traits with forage quality across temperate grasslands under ambient and drought conditions. *Ecology and Evolution* 15(6): e71569

38. Chen, Q, SA Blowes, WS Harpole, E Ladouceur, ET Borer, A MacDougall, **JP Martina**, JD Bakker, PM Tognetti, EW Seabloom, P Daleo, S Power, C Roscher, P Adler, I Donohue, G Wheeler, C Stevens, C Veen, AC Risch, GM Wardle, Y Hautier, C Estrada, E Hersch-Green, Y Niu, PL Peri, A Eskelinen, DS Gruner, HO Venterink, C D'Antonio, MW Cadotte, S Haider, N Eisenhauer, J Catford, R Virtanen, JW Morgan, M Tedder, S Bagchi, MC Caldeira, M Bugalho, JMH Knops, CR Dickman, N Hagenah, A Jentsch, P Macek, BB Osborne, L Laanisto , JM Chase. 2025. Local nutrient addition drives plant biodiversity losses but not biotic homogenization in global grasslands. *Nature Communications* 16(1): 4903.

37. Zhang, P, E Seabloom, J Foo, A MacDougall, W Harpole, P Adler, Y Hautier, N Eisenhauer, M Spohn, J Bakker, Y Lekberg, A Young, C Carbutt, A Risch, P Peri, N Smith, C Stevens, S Prober, J Knops, G Wardle, CR Dickman, A Ebeling, C Roscher, H Martinson, **JP Martina**, S Power, Y Niu, Z Ren, G Du, R Virtanen, C Arnillas, P Tognetti, M Tedder, A Jentsch, J Catford, E Borer. 2025. Dominant species predict plant richness and biomass in global grasslands. *Nature Ecology and Evolution* 9: 924-936.

36. Fay, PA, LA Gherardi, L Yahdjian, PB Adler, JD Bakker, S Bharath, ET Borer, WS Harpole, E Hersch Green, TE Huxman, AS MacDougall, AC Risch, EW Seabloom, S Bagchi, IC Barrio, L Biederman, YM Buckley, MN Bugalho, MC Caldeira, JA Catford, Q Chen, E Cleland, SL Collins, P Daleo, CR Dickman, I Donohue, ME DuPre, N Eisenhauer, A Eskelinen, N Hagenah, Y Hautier, RW Heckman, IS Jónsdóttir, JMH Knops, R Laungani, **JP Martina**, RL McCulley, JW Morgan, HO Venterink, PL Peri, SA Power, X Raynaud, Z Ren, C Roscher, M Smith, M Spohn, CJ Stevens, MJ Tedder, R Virtanen, GM Wardle, GR Wheeler. 2025. Multiple nutrient interactions govern the global grassland biomass – precipitation relationship. *Proceedings of the National Academy of Sciences*, *122*(15), e2410748122.

35. Calvo, C., K.J. Elgersma, D.E. Goldberg, W.S. Currie, E. Batzer and **J.P. Martina**. 2025. Biotic resistance across a nutrient gradient in experimental coastal wetlands. *Ecological Applications* 35(4): e70029.

34. [G]Lorkovic, E., **J.P. Martina**, M. McGarrity, A. Schwalb. 2025. Two invaders, one reservoir: Hydrilla shapes the distribution of zebra mussels and may facilitate their growth. *Aquatic Invasions* 20(3), 273-290.

33. Spohn, M., S. Bagchi, J.D. Bakker, E.T. Borer, C. Carbutt, J.A. Catford, C.R. Dickman, N. Eisenhauer, A. Eskelinen, N. Hagenah, Y. Hautier, S.E. Koerner, K.J. Komatsu, L. Laanisto, Y. Lekberg, **J.P. Martina**, H. Martinson, P. Meelis, P.L. Peri, A.C. Risch, N.G. Smith, C. Stevens, G.F. Veen, R. Virtanen, L. Yahdjian, A.L. Young, H.S. Young, E.W. Seabloom. 2025. Interactive and unimodal relationships between plant biomass, abiotic factors, and plant diversity in global grasslands. *Communications Biology* 8(1), 97.

32. Cheaib, A., E.F. Waring, R. McNellis, E.A. Perkowski, **J.P. Martina**, E.W. Seabloom, E.T. Borer, P.A. Wilfahrt, N. Dong, I.C. Prentice, I.J. Wright, S.A. Power, E.I. Hersch-Green, A.C. Risch, M.C. Caldeira, C. Nogueira, Q. Chen, N.G. Smith. 2025. Soil nitrogen supply exerts largest influence on leaf nitrogen in environments with the greatest leaf nitrogen demand. *Ecology Letters* 28(1) e70015.

31. [G]Plappert, J.L., Veech, J.A., **Martina, J.P**., Giocomo, J.J. 2024. Canopy cover as the primary factor affecting habitat use by grassland-shrubland bird species in central Texas, USA. *Journal of Field Ornithology* 95(3):10

30. MacDougall, A, E Ellen, T Ohlert, Q Chen, O Carrol, C Bonner, E Seabloom, M Siewart, A Schweiger, E Borer, D Naidu, S Bagch, Y Hautier, P Wilfhart, K Larson, J Olofsson, E Cleland, R Muthukrishnan, L O'Halloran, J Alberti, TM Anderson, CA Arnillas, JD Bakker, IC Barr, L Biederman, EH Boughton, CM Bruschetti, Y Buckley, MN Bugalho, MW Cadotte, MC Caldeira, JA Catford, P Daleo, CR Dickman, I Donohue, K Elgersma, N Eisenhauer, A Eskelinen, C Estrada, PA

Fay, Y Feng, DS Gruner, N Hagenah, S Haider, S Harpole, E Hersch-Green, A Jentsch, K Kirkman, JMH Knops, L Laanisto, LS Lannes, A Lkhagva, **JP Martina**, RL McCulley, R Mitchell, JL Moore, JW Morgan, TO Muraina, Y Niu, M Pärtel, PL Peri, SA Power, JN Price, SM Prober, Z Ren, AC Risch, N Smith, G Sonnier, RJ Standish, CJ Stevens, M Tedder, P Tognetti, GF Veen, R Virtanen, GM Wardle, L Waring, AA Wolf, L Yahdjian, C D'Antonio. 2024. Widening global variability in grassland biomass since the 1980s. *Nature Ecology and Evolution* 8(10) 1877-1888

29. [G]Herod, M. and **J.P. Martina**. 2023. Influence of light, nutrients, and soil moisture on the growth and resource allocation of *Arundo donax*. *Weed Research 64(1) 54-64*

28. Spohn, M, S Bagchi, L Biederman, E Borer, KA Bråthen, M Bugalho, M Caldeira, J Catford, S Collins, N Eisenhauer, N Hagenah, S Haider, Y Hautier, J Knops, S Koerner, L Laanisto, Y Lekberg, **JP Martina**, H Martinson, R McCulley, P Peri, M Petr, S Power, A Risch, C Roscher, E Seabloom, C Stevens, GF Veen, R Virtanen, L Yahdjian. 2023. The positive effect of plant diversity on soil organic carbon depends on climate. *Nature Communications* 14(1):6624

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26. Wilfahrt, P., E. Seabloom, J. Bakker, L. Biederman, M. Bugalho, M. Cadotte, M. Caldeira, J. Catford, Q. Chen, I. Donohue, A. Ebeling, N. Eisenhauer, S. Haider, R. Heckman, A. Jentsch, S. Koerner, K. Komatsu, R. Laungani, A. MacDougall, **J.P. Martina**, H. Martinson, J. Moore, Y. Niu, T. Ohlert, H. olde Venterink, P. Orr, P. Peri, E. Pos, J. Price, X. Raynaud, Z. Ren, C. Roscher, N. Smith, C. Stevens, L. Sullivan, M. Tedder, P. Tognetti, C. Veen, G. Wheeler, A. Young, H. Young, E. Borer. 2023. Nothing lasts forever: dominant species decline under rapid environmental change in global grasslands. *Journal of Ecology* 111:2472-2482

25. Garbowski, M., E. Boughton; A. Ebeling, P. Fay, Y. Hautier, H. Holz, A. Jentsch-Beierkuhnlein, S. Jurburg, E. Ladouceur, **J.P. Martina**, T. Ohlert, X. Raynaud, C. Roscher, G. Sonnier, P. Tognetti, L. Yahdjian, P. Wilfart, W.S. Harpole. 2023. Nutrient enrichment alters seasonal beta-diversity in global grasslands. *Journal of Ecology* 111:2134-2145

24. [G]Rogan, J., M.R. [G]Parker, Z.B. [G]Hancock, A.D. [G]Earl, E.K. [G]Buchholtz, K. [G]Chyn, **J.P. Martina**, L.A. Fitzgerald. 2023. Genetic and demographic consequences of range contraction patterns during biological annihilation. *Scientific Reports* 13:1691

23. Siciliano-Martina, L., **J.P. Martina**, [U]Dohnalik, E., [U]Vielleux, G. 2023. Factors influencing the timing and frequency of litters in captive fennec foxes (*Vulpes zerda*). *Animal Reproduction Science* 248 107182

22. Ladouceur, E., S.A. Blowes, J.M. Chase, A.T. Clark, M. Garbowski, J. Alberti, C.A. Arnillas, J.D. Bakker, I.C. Barrio, S. Bharath, E.T. Borer, L.A. Brudvig, M.W. Cadotte, Q. Chen, S.L. Collins, C.R. Dickman, I. Donohue, G. Du, A. Ebeling, N. Eisenhauer, P.A. Fay, N. Hagenah, Y. Hautier, A. Jentsch, I.S. Jónsdóttir, K. Komatsu, A. MacDougall, **J.P. Martina**, J.L. Moore, J.W. Morgan, P.L. Peri, S.A. Power, Z. Ren, A.C. Risch, C. Roscher, M.A. Schuchardt, E.W. Seabloom, C.J. Stevens,

G.F. Veen, R. Virtanen, G.M. Wardle, P.A. Wilfahrt, W.S. Harpole. 2022. Linking changes in species composition and biomass in a globally distributed grassland experiment. *Ecology Letters* 25:2699-2712

21. [U]Jameson, E.E., Elgersma, K.J., **J.P. Martina,** W.S. Currie, and D.E. Goldberg. 2022. Size-dependent analyses provide insights into the reproductive allocation and plasticity of invasive and native *Typha*. *Biological Invasions* 24:3799-3815

20. Carroll, O., E. Batzer, S. Bharath, E.T. Borer, S. Campana, E. Esch, Y. Hautier, T. Ohlert, E.W. Seabloom, P.B. Adler, J.D. Bakker, L. Biederman, M.N. Bugalho, M. Caldeira, Q. Chen, K. Davies, P.A. Fay, J.M.H. Knops, K. Komatsu, **J.P. Martina**, K.S. McCann, J.L. Moore, J.W. Morgan, T.O. Muraina, B. Osborne, A.C. Risch, C. Stevens, P.A. Wilfhart, L. Yahdjian, and A.S. MacDougall. 2022. Nutrient identity modifies the destabilizing effects of eutrophication in grasslands. *Ecology Letters* 25(4) 754-765

19. [G]Yuan, Y., K.J. Elgersma, **J.P. Martina**, S. Sharp and W.S. Currie. 2021. Sustained-flux global warming potential driven by nitrogen inflow and hydroperiod in a model of Great Lakes coastal wetlands. *JGR – Biogeosciences* 126, e2021JG006242. https://doi. org/10.1029/2021JG006242

18. [G]Novak, E.N., M. Bertelsen, R. Davis, D.M. Grobert, K.G. Lyons, **J.P. Martina**, M. McCaw, M. O'Toole, J.W. Veldman. 2021. Season of prescribed fire determines grassland restoration outcomes after fire exclusion and overgrazing. *Ecosphere* 12(9):e03730. 10.1002/ecs2.3730

17. Weinstein, C., L. Bourgeau-Chavez, S.L. Martin, W.S. Currie, K. Grantham, Q.F. Hamlin, D.W. Hyndman, K.P. Kowalski, **J.P. Martina**, D. Pearsall. 2021. Enhancing Great Lakes coastal ecosystems research by initiating engagement between scientists and decision-makers. *Journal of Great Lakes Research* 47: 1235-1240

16. Sharp, S.J., K.J. Elgersma, **Martina, J.P.** and W.S. Currie. 2021. Hydrologic flushing rates drive nitrogen cycling and plant invasion in a freshwater coastal wetland model. *Ecological Applications* 31(2):e02233.10.1002/eap.2233

15. Borer, E.T, W.S. Harpole, P.B. Adler, M.N. Bugalho, M.W. Cadotte, M.C. Caldeira, M.S. Campana, A. Carlos-Albert, C.R. Dickman, T.L. Dickson, I. Donohue, A. Eskelinen, P.A. Fay, J.L. Firn, P.B. Graff, D.S. Gruner, R.W. Heckman, A.M. Koltz, K.J. Komatsu, L.S. Lannes, A.S. MacDougall, **J.P. Martina**, J.L. Moore, B. Mortensen, R. Ochoa-Hueso, H. Olde Venterink, S.A. Power, J.N. Price, A.C. Risch, M. Sankaran, M. Schütz, J. Sitters, C.J. Stevens, R. Virtanen, P.A. Wilfahrt, E.W. Seabloom. 2020. Nutrients cause grassland biomass to outpace herbivory. *Nature Communications* 11, 6036. https://doi.org/10.1038/s41467-020-19870-y

14. *Siciliano-Martina, L.M. and ***J.P. Martina**. 2020. Shifting barriers to the acceptance of evolution in an underrepresented student group. *International Journal of Science Education* 42: 2205-2223

13. Goldberg, D.E., E.E. [G]Batzer, K.J. Elgersma, **J.P. Martina**, and J. Klimesova. 2020. Allocation to clonal growth: critical questions and protocols to answer them. *Perspectives in Plant Ecology, Evolution and Systematics* 43: 125511

12. Siciliano-Martina, L.M. and **J.P. Martina**. 2018. Stress and social behaviors of maternally-deprived captive giraffes (*Giraffa camelopardalis*). *Zoo Biology* 37: 80-89

11. [U]Batzer, E.E., **J.P. Martina**, K.J. Elgersma and D.E. Goldberg. 2017. Clonal plant allocation to daughter ramets is a simple function of parent size across species and nutrient levels. *Plant Ecology* 218: 1299-1311 DOI: https://doi.org/10.1007/s11258-017-0769-z

10. Goldberg, D.E., **J.P. Martina**, K.J. Elgersma, and W.S. Currie. 2017. Plant size and competitive dynamics along nutrient gradients. *American Naturalist* 190: 229-243

9. Elgersma, K.J., **J.P. Martina**, W.S. Currie, and D.E. Goldberg. 2017. Effectiveness of cattail (*Typha* spp.) management techniques depends on exogenous nitrogen inputs. *Elementa* 5:19, DOI: https://doi.org/10.1525/elementa.147

8. **Martina, J.P.**, Currie, W.S., Goldberg, D.E., and K.L. Elgersma. 2016. Nitrogen loading leads to increased carbon accretion in both invaded and uninvaded coastal wetlands. *Ecosphere* 7(9): e01459. 10.1002/ec2.1459

7. Elgersma, K.J., Wildova, R., **Martina, J.P.**, Currie, W.S. and D.E. Goldberg. 2015. Does clonal resource translocation relate to invasiveness of *Typha* taxa? Results from a common garden experiment. *Aquatic Botany* 126: 48-53

6. **Martina, J.P.**, Hamilton, S.K., Turetsky, M.R. and [U]C.J. Phillippo. 2014. Organic matter stocks increase with degree of invasion in temperate inland wetlands. *Plant and Soil* 385: 107-123

5. Currie, W.S., Goldberg, D.E., **Martina, J.P.**, Wildova, R., Farrer, E., and K. Elgersma. 2014. Emergence of nutrient-cycling feedbacks related to plant size and invasion success in a wetland community-ecosystem model. *Ecological Modelling* 282: 69-82

4. **Martina, J.P.** and C.N. von Ende. 2013. Increased spatial dominance in high nitrogen, saturated soil due to clonal architecture plasticity of the invasive wetland plant, *Phalaris arundinacea*. *Plant Ecology* 214: 1443-1453

3. **Martina, J.P.** and C.N. von Ende. 2012. Highly plastic response in morphological and physiological traits to light, soil-N and moisture in the model invasive plant, *Phalaris arundinacea*. *Environmental and Experimental Botany* 82: 43-53.

2. Ball, B.A., Kominoski J.S., Adams, H.E., Jones, S.E., Kane, E.S., Loecke, T.D., Mahaney, W.M., **Martina, J.P.**, Prather, C.M., Robinson, T.M.P., and C.T. Solomon. 2010. Direct and terrestrial vegetation-mediated effects of environmental change on aquatic ecosystem processes. *Bioscience* 60: 590-601.

1. **Martina, J.P.** and C.N. von Ende. 2008. Correlation of soil nutrient characteristics and reed canarygrass (*Phalaris arundinacea*: Poaceae) abundance in northern Illinois, USA. *American Midland Naturalist* 160: 430-437.

Manuscripts in Preparation

Martina, J.P., R. Ramirez, K.J. Elgersma, S. Sharp, W.S. Currie, D.E. Goldberg. Propagule pressure and disturbance interact along a nitrogen gradient to influence invasion outcomes in a simulated wetland system. (*In Prep*)

Martina, J.P., R. O'Connor, S.K. Hamilton and M.R. Turetsky. Litter diversity and interactive

effects between litter and soil control decomposition and nitrogen transformation in invaded wetlands. (*In Prep*)

Thesis Publications

Martina, J.P. 2012. Invasive plant species impacts on carbon and nitrogen cycling in inland Michigan wetlands. Dissertation, Michigan State University, East Lansing, MI.

Martina, J.P. 2006. Effects of soil nutrient characteristics, moisture, and light on the growth response and resource allocation of *Phalaris arundinacea*, an invasive wetland plant. Master's Thesis, Northern Illinois University, Dekalb IL.

Teaching Experience and Training

Participant in The Prairie Project Education Cohort, 2021-2023
USDA funded project aimed to examine how pyric-herbivory and mixed-species grazing can support the sustainability of livestock production and ecosystem services in the Great Plains region. The education component trains regional educators to develop modules that introduce relevant science to their students through experiential learning and citizen science research.

Certificate in College Science Teaching, 2013
Postdoctoral Short-Course offered by the Rackham School of Graduate Studies and the Center for Research on Learning and Teaching
University of Michigan, Ann Arbor, MI.

Courses Taught:

Texas State University

Global Change Biology (Lecture)	2020 – 2026
Wetland Plant Ecology and Management (Lecture & Lab)	2020 – 2026
Ecology and Management of Aquatic Macrophytes (Lecture & Lab)	2020 – 2026
Population and Conservation Seminar: Drought Effects on Ecosystems	2025
Population and Conservation Seminar: Plant-Soil Feedbacks	2021

Texas A&M University

Fundamentals of Environmental Decision Making (Lecture)	2018
First Year Graduate Seminar in EEB	2016 - 2018

Our Lady of the Lake University

Environmental Science (Lecture & Lab)	2015 - 2016
Vascular Plants (Lecture & Lab)	2014 - 2016
Introduction to Evolution (Online)	2015 - 2016
Aquatic Biology (Lecture & Lab)	2015
General Ecology (Lecture & Lab)	2014 - 2015

University of Michigan

Practice Teaching Facilitator, CRLT Teaching Orientation	2013 – 2014

Michigan State University (Teaching Assistant)

Tropical Biology (Lecture)	2011
Organisms and Populations (Lab)	2010 - 2011

Experiments in Plant Biology (Lab)	2010
General Plant Biology (Lab)	2009
General Ecology (Lecture & Lab)	2008

Northern Illinois University (Teaching Assistant)

Fundamentals of Biology (Lab)	2004 - 2006

Guest Lectures

HalfMoon Education Lecture, Summer 2024, Fall 2025, Title: Wetland preservation, restoration, creation and enhancement. Online webinar.

BIO 3460 Aquatic Biology, Fall 2019, 2020, Title: Plant adaptations to wetland environments. Texas State University.

BIO 4400 Plants Important for Wildlife, Fall 2019, Title: Causes and impacts of plant invasions. Texas State University

WFSC 628 Wetland Ecology and Pollution, Fall 2017, Title: The quest for control: adaptive management of invasive species in wetlands. Texas A&M University

RENR 205 Introduction to Ecology, Fall 2017, Lecture Title: Ecological principles in conservation and management. Texas A&M University

NRE 509 Ecology: Science of Context and Interaction, Fall 2013, Lecture Title: Nr and the N cascade. University of Michigan

NRE 501 Biofuels and Sustainability, Winter 2013, Lecture Title: Biofuels and invasive plant species. University of Michigan

FW 417 Wetland Ecology and Management, Fall 2007-2013, Lecture Title: Invasive plant species in wetlands. Michigan State University

ZOL 485 Tropical Biology, Fall 2011, Lecture Title: Decomposition: mechanisms and global patterns. Michigan State University

ZOL 897 Ecosystem Ecology and Global Change, Spring 2011, Discussion of the rise and fall of the phosphorus paradigm in limnology. Michigan State University

PLB 105 Plant Biology, Spring 2009, Lecture Title: Humans and the environment. Michigan State University

Invited Seminars

Herbaceous ecosystems under global change: Insights from grasslands and wetlands. Department of Biology and Biochemistry Seminar Series, University of Houston, October 2025

From nutrient sinks to sources: Understanding wetland contributions to eutrophication in the Great Lakes. MESA Conference, Texas Tech University, Lubbock, TX. April 2025

From grasslands to wetlands: herbaceous communities in a human-dominated world. Department of Biology. Texas State University, San Marcos, TX. October 2024 (tenure talk)

Conservation and management of wetlands in a changing world. Department of Fisheries and Wildlife. Michigan State University, East Lansing, MI. May 2023

Studying global change in wetlands and grasslands. Environmental Science and Sustainability Seminar Series. Department of Mathematics and Sciences. Our Lady of the Lake University, San Antonio, TX. November 2021

Using experimental and modeling approaches to reconcile the past, present, and future of wetland plant invasions. Department of Biology Seminar Series. Texas State University, San Marcos, TX. January 2019

Merging remote sensing, modeling, and field data to understand and manage plant invasions in Great Lakes coastal wetlands. Seminar Series cohosted by the Ecology and Evolutionary Biology and Applied Biodiversity Science Programs. Texas A&M University, College Station, TX. October 2016

Plant invasion in coastal Great Lakes wetlands: Merging satellite, modeling, and field data to understand causes and consequences. Department of Biology Sciences Seminar Series. Trinity University, San Antonio, TX. October 2015

Invasive plants in wetlands: using an experimental and modeling framework to understand causes and consequences. Department of Biological Sciences Seminar Series. Northern Illinois University, DeKalb, IL. April 2014

Invasive plants in wetlands: using an experimental and modeling framework to understand causes and consequences. Conservation Ecology Seminar Series. University of Michigan, Ann Arbor, MI. February 2014

The effects of organic pollutants in urban lakes. Department of Mathematics and Sciences. Our Lady of the Lake University, San Antonio, TX. January 2014

Biodiversity: definition, benefits, and threats. Department of Biology Seminar. Angelo State University, San Angelo, TX. January 2014

Understanding causes and consequences of plant invasion in coastal wetlands. Department of Biology Seminar. Angelo State University, San Angelo, TX. January 2014

Invasive species effects on biogeochemical cycling in temperate wetlands. Plant Ecology Discussion Group. University of Michigan, Ann Arbor, MI. Spring 2011.

First-Author Conference Presentations *(*denotes an invited talk, bold indicates presenter,)*

Calvo C., Elgersma K. J., Currie W. S., Kendall A., **Martina J.P**. Extreme changes in water level and nutrient loading can shift freshwater coastal wetlands from nutrient sinks to sources. 14th Annual International Symposium on Biogeochemistry of Wetlands and Aquatic Systems, Baton Rouge, LA. June 2025. (*poster*)

***Martina, J.P.**, S.T.S. Dixon and X. Wu. Leveraging collaborative professional inquiry in developing a data-driven authentic inquiry project for an upper-level Global Change Biology course. Ecological Society of America Annual Meeting, Long Beach, CA. August 2024. (*oral presentation*)

Martina, J.P., R. Ramirez, K.L. Elgersma, D.E. Goldberg, S. Sharp and W.S. Currie. The role of propagule pressure, biotic resistance, and nutrient loading on invasion dynamics in freshwater coastal wetlands. Invasion Science Research Symposium, Gainesville, FL. May 2024. (*poster*)

Martina, J.P., R. Ramirez, K.L. Elgersma, D.E. Goldberg, S. Sharp and W.S. Currie. The role of propagule pressure, biotic resistance, and nutrient loading on invasion dynamics in freshwater coastal wetlands. Ecological Society of America Annual Meeting, Portland, OR. August 2023. (*poster*)

Martina, J.P. and S.T.S. Dixon. Effects of Woody Encroachment on Native Bird Diversity: A Prairie Project Teaching Module. Resources for Ecology Education – Fair and Share (REEFS). Ecological Society of America Annual Meeting, Portland, OR. August 2023. (*oral presentation*)

Martina, J.P. Integrating Systems Models and Remote Sensing to Explore Aquatic Ecosystems Vulnerability to Global Change in Lake Huron. NASA MUREP OCEAN PI Meeting. Virtual. April 2022. (*oral presentation*)

Martina, J.P., K.L. Elgersma, D.E. Goldberg, S.J. Sharp, W.S. Currie. Tipping the tipping point: After a regime shift to invader dominance can management or high water levels push a wetland plant community back to a pre-invaded state? Society for Ecological Restoration. Virtual. June 2021. (*oral presentation*)

Martina, J.P., K.J. Elgersma, D.E. Goldberg, S.J. Sharp, W.S. Currie. Tipping the tipping point: After a regime shift to invader dominance can management or high water levels push a wetland plant community back to a pre-invaded state? American Geophysical Union Fall Meeting. Virtual. December 2020. (*eLightning Poster*)

***Martina, J.P.**, K.L. Elgersma, W.S. Currie, D.E. Goldberg. Can invasion be reversed by removing the main driver or has a regime shift occurred? A test case using a simulated wetland ecosystem. Texas Aquatic Plant Management Society Annual Conference. Bryan, TX. November 2019. (*oral presentation*)

Martina, J.P., K.L. Elgersma, W.S. Currie, D.E. Goldberg. Can invasion be reversed by removing the main driver or has a regime shift occurred? A test case using a simulated wetland ecosystem. Texas Chapter of the Society of Ecological Restoration. Galveston, TX. November 2019. (*oral presentation*)

Martina, J.P., R. Ramirez, K.L. Elgersma, S. Sharp, W.S. Currie, D.E. Goldberg. Propagule pressure and clonal branching architecture interact along a nitrogen gradient to influence invasion outcomes in a simulated wetland system. Annual Meeting of the Ecological Society of America. Louisville, KY. August 2019. (*oral presentation*)

Martina, J.P., K.L. Elgersma, W.S. Currie, D.E. Goldberg. Can invasion be reversed by removing the main driver or has a regime shift occurred? A test case using a simulated wetland ecosystem. Annual Meeting of the Ecological Society of America. New Orleans, LA. August 2018. (*oral presentation*)

Martina, J.P., K.L. Elgersma, W.S. Currie, D.E. Goldberg. What are the effects of management duration and type (burning, herbiciding, mowing) on the success of invasive cattail and C and N cycling? Society of Wetland Scientists Annual Meeting. Corpus Christi, TX. May-June 2016. (*oral presentation*)

Martina, J.P., K.L. Elgersma, W.S. Currie, D.E. Goldberg. Evaluating the efficacy of management techniques (mowing, burning, and herbiciding) on the control of cattail (*Typha* spp.) across a gradient of nitrogen loading. Texas Chapter of the Society of Ecological Restoration. San Antonio, TX. November 2015. (*oral presentation*)

Martina, J.P., K.L. Elgersma, W.S. Currie, D.E. Goldberg. Effectiveness of cattail (*Typha* spp.) management techniques (mowing, burning, and herbiciding) depends on exogenous nitrogen inputs. Annual Meeting of the Ecological Society of America. Baltimore, MD. August 2015. (*oral presentation*)

Martina, J.P., W.S. Currie, D.E. Goldberg, K.L. Elgersma. Physiological trait variation in plant invaders influences invasion success and C cycling across a nitrogen gradient in a simulated wetland ecosystem. Annual Meeting of the Ecological Society of America. Sacramento, CA. August 2014. (*oral presentation*)

***Martina, J.P.**, W.S. Currie, D.E. Goldberg, K.L. Elgersma. Investigating the major drivers of C storage in coastal wetlands using a simulation model: Do plant invasions matter? Joint Aquatic Sciences Meeting. Portland, OR. May 2014. (*oral presentation*)

Martina, J.P., W.S. Currie, D.E. Goldberg, K.L. Elgersma. Interactive effects of invasion and hydrology influence C storage along a nitrogen gradient in a simulated clonal wetland ecosystem. 98th Annual Meeting of the Ecological Society of America. Minneapolis, MN. August 2013. (*oral presentation*)

Martina, J.P., W.S. Currie, D.E. Goldberg. The interaction between litter and N loading determines invader success and N retention in a simulated clonal wetland ecosystem. American Geophysical Union Fall Meeting. San Francisco, CA. December 2012. (*oral presentation*)

Martina, J.P., W.S. Currie, D.E. Goldberg. The interaction between litter, N loading, and allocation requirement determines invader success in a simulated clonal wetland ecosystem. Society of Wetland Scientists North Central Chapter Meeting. Indiana Dunes National Lakeshore, IN. September 2012. (*oral presentation*)

Martina, J.P., S.K. Hamilton and M.R. Turetsky. Effects of aboveground biomass and litter on biogeochemical cycling in stands of the invasive wetland plant, *Phragmites australis*. 97th Annual Meeting of the Ecological Society of America. Portland, OR. August 2012. (*oral presentation*)

Martina, J.P., M.R. Turetsky and S.K. Hamilton. Invasive plants in wetlands: Effects of litter and soil conditioning on decomposition and N transformation rates. 96th Annual Meeting of the Ecological Society of America. Austin, TX. August 2011. (*oral presentation*)

Martina, J.P. Dominant species effects on C and N cycling in temperate wetlands. Kellogg Biological Station Brown Bag Series. Hickory Corners, MI. Fall 2010. (*oral presentation*)

Martina, J.P., C.J. Phillipo, S.K. Hamilton and M.R. Turetsky. Dominant species effects on carbon and nitrogen cycling in temperate wetlands. 95th Annual Meeting of the Ecological Society of America. Pittsburgh, PA. August 2010. (*oral presentation*)

Martina, J.P., C.J. Phillipo, S.R. Rubin and M.R. Turetsky. Consequences of plant invasion on carbon and nitrogen transformation and storage in temperate wetlands. 94th Annual Meeting of the Ecological Society of America. Albuquerque, NM. August 2009. (*poster*)

Martina, J.P., C.J. Phillipo, S.R. Rubin and M.R. Turetsky. Consequences of plant invasion on

carbon and nitrogen transformation and storage in temperate wetlands. Great Lakes Regional Biogeochemistry Symposium. KBS. May 2009. (*poster*)

Martina, J.P. Consequences of plant invasion on nitrogen transformations and C and N storage in Michigan Wetlands. Kellogg Biological Station Brown Bag Series. Hickory Corners, MI. Spring 2009. (*oral presentation*)

Martina, J.P. and C.N. von Ende. Effects of light, soil-N, and moisture on the biomass and resource allocation of *Phalaris arundinacea*. 93rd Annual Meeting of the Ecological Society of America. Milwaukee. August 2008. (*poster*)

Martina, J.P., C.J. Phillipo and M.R. Turetsky. Organic matter accumulation and quality in Michigan wetlands: consequences of plant diversity and biological invasion. Society of Wetland Scientists. Washington, D.C. May 2008. (*poster*)

Martina, J.P. and C.N. von Ende. Effects of light, soil-N, and moisture on the biomass and resource allocation of *Phalaris arundinacea*. Botany and Plant Biology 2007 Joint Congress, Chicago, IL. July 2007. (*poster*)

Martina, J.P. and C.N. von Ende. Effects of light, soil-N, and moisture on the biomass and resource allocation of *Phalaris arundinacea*. Invasive Species Research Symposium. Michigan State University, East Lansing, Michigan. May 2006. (*poster*)

Martina, J.P. and C.N. von Ende. Light, nitrogen, and moisture effects of biomass allocation in reed canarygrass (*Phalaris arundinacea*). Phi Sigma Research Symposium. Northern Illinois University, Dekalb, IL. May 2004. (*poster*)

Co-Authored Presentations (*Bold indicates presenter, * denotes invited talk, ^ denotes student*)

^**Morton K.T., ^Peck L.A.,** Binder S.B., Greer A.B., Zavar E., Martina J.P., From Floods to Flowers: Plant and Pollinator Communities in Post-buyout Landscapes. Ecological Society of America 2026 Annual Meeting, Salt Lake City, UT. August 2026. (*poster*)

^**Chaudhary, T.,** Yost, J.L., Merilynn Schantz, David Rowley, Joseph W. Veldman, Martina, J.P. Soil disturbance reduces carbon inputs and accelerates losses of soil organic carbon in a Texas Grassland. Ecological Society of America Annual Meeting, July 26-31, 2026 (*Oral presentation*).

^**Prajapati, S**., Fay, P. A., Yost, J. L., Martina, J. P., & Schwinning, S. Grassland carbon dynamics: Linking the role of diversity and productivity in carbon sequestration. Annual Meeting of the Ecological Society of America, Salt Lake City, Utah, July 2026. (*poster*)

^**Prajapati, S.,** Yost, J.L., Martina, J.P., Schwinning, S. Uncoupling the roles of below-ground productivity and species richness in soil carbon sequestration: Comparison of root biomass and rooting depth. TXST Graduate Student Research Conference (GSRC), San Marcos, TX. April 2026 (*poster*)

^**Chaudhary, T.,** J.L. Yost, M. Schantz, D. Rowley, J.W. Veldman, J.P. Martina. Soil disturbance reduces carbon inputs and accelerates losses of soil organic carbon in a Texas Grassland. TXST

Graduate Student Research Conference (GSRC), San Marcos, TX. April 2026 (Research Poster) https://hdl.handle.net/10877/24671

^**Prajapati, S**., Yost, J.L., Martina, J.P., Schwinning, S. Diversity assessment after 14 years of grassland restoration: the link between diversity and productivity. TXST STEM Conference, San Marcos, TX. March 2025 (*poster*)

^**Prajapati, S**., Martina, J.P., Schwinning, S. Diversity assessment after 14 years of grassland restoration. TXST GSRC, San Marcos, TX. April 2025 (*poster*)

^**Baua, E. J.,** ^Chaudhary, T., Muraina, T.O., Martina, J.P. Seed bank and plant diversity responses to soil disturbance and fertilization in a mesic grassland. TXST STEM and URC Conferences, San Marcos, TX. March/April 2025 (poster)

^**Chaudhary, T.,** Martina, J.P. Grassland soil respiration remains stable despite nutrient enrichment and soil disturbance. TXST Graduate Student Research Conference (GSRC), San Marcos, TX. April 2025 (poster)

^**Chaudhary, T.,** Martina, J.P. CO_2 flux in a managed grassland mirrors plant growth trends and varies with nutrient enrichment and soil disturbance. TXST STEM Conference, San Marcos, TX. March 2025 (poster)

^**Prajapati, S**., J.P. Martina and S. Schwinning**.** Diversity assessment after 14 years of grassland restoration. Department of Biology Bio-colloquium, TXST, San Marcos, TX. February 2025. (*poster – best grad poster*)

Yost, J.L., P.A. Fay and J.P. Martina. Impact of Inorganic Fertilizer on Soil Health Indicators in a Native Grassland in Central Texas. ASA, CSSA, SSSA International Annual Meeting, San Antonio, TX. November 2024 (*oral presentation)*

^**Sanders, S.,** C. Calvo, and J.P. Martina. The effects of nutrient loading and mowing on the growth and reproduction of invasive the invasive sedge, *Cyperus entrerianus*. Texas Aquatic Plant Management Society Annual Meeting, New Braunfels, TX. November 2024. (*oral presentation*)

^**De La Serna, C., ^A. Miller,** C. Calvo, and J.P. Martina. Indirect effects of global warming on coastal wetlands: *Phragmites australis* success mediated by changes to the nitrogen cycle. Texas Aquatic Plant Management Society Annual Meeting, New Braunfels, TX. November 2024. (*oral presentation*)

Siciliano-Martina, L.M. and J.P. Martina. Stressing the grass: Changes in the leaf symmetry of an invasive plant in response to light levels. Ecological Society of America Annual Meeting, Long Beach, CA. August 2024. (*oral presentation*)

^**Chaudhary, T.,** ^Rowley, D., Fay, P.A., Yost, J.L., Martina, J.P. High species asynchrony promotes the stability of grassland biomass under prolonged nutrient addition. Ecological Society of America Annual Meeting, Long Beach, CA. August 2024. (*poster*)

Calvo C., Elgersma K. J., Currie W. S., Kendall A., Martina J. P. Extreme changes in water level and nutrient loading can shift freshwater coastal wetlands from nutrient sinks to sources. Ecological Society of America Annual Meeting, Long Beach, CA. August 2024. (*poster*)

Muraina, T.O., N. Te, J.P. Martina, W. Luo. Responses and drivers of soil organic carbon under isolated and recurrent droughts in two semi-arid grasslands. Ecological Society of America Annual Meeting, Long Beach, CA. August 2024. (*oral presentation*)

^Fogel, B., A.A. Castellanos, **P.S. Williamson**, J.P. Martina. Using ecological niche modeling to predict endangered plant species distributions and effects of climate change on suitable habitat. North American Congress of Conservation Biology (NACCB), Vancouver, Canada. June 2024. (*poster*)

Abolmaali, S., A.D. Kendall, J.P. Martina, M. Battaglia, and L.L. Bourgeau-Chavez. Quantify Nutrient Pathways and Fluxes to Coastal Wetlands in Great Lake Huron. American Geophysical Union WaterSciCon, St. Paul, MN. June 2024 (*oral presentation*)

^**Vaquera T**., ^**Villarreal R**., Calvo C., Martina J.P. Impact of rising temperatures and increasing nitrogen input on invasive *Phragmites australis* in coastal wetlands. Department of Biology Bio-colloquium, TXST, San Marcos, TX. February 2024. (*poster*)

^**Miller, A**., ^**De la Serna, C**., Calvo C., Martina J.P. Direct and indirect effects of global warming on coastal wetlands: *Phragmites australis* success mediated by changes to the nitrogen cycle. STEM Conference & Undergraduate Conference, TXST, San Marcos, TX. April 2024 (*poster*)

^**Vanderworth E**., ^**Martinez A**., Calvo C., Martina J.P. Testing the effects of drought and flooding on coastal wetland plant species using simulation modeling. STEM Conference & Undergraduate Conference, TXST, San Marcos, TX. April 2024 (*poster*)

^**Ramirez V**., ^**Hohertz A**., Calvo C., Martina J.P. The effect of climate change on the efficacy of herbicide as a management tool for *Phragmites australis* in the Great Lakes Region. STEM Conference & Undergraduate Conference, TXST, San Marcos, TX. April 2024 (*poster*)

^**Miller, A**., ^**De la Serna, C**., Calvo C., Martina J.P. Direct and indirect effects of global warming on coastal wetlands: *Phragmites australis* success mediated by changes to the nitrogen cycle. MUREP OCEAN / DEAP PI Annual Meeting. June 2024. (*virtual poster*)

^**Chaudhary, T**., ^Rowley, D., Fay, P.A., Yost, J.L., Martina, J.P. The stability of grasslands under prolonged fertilization is controlled by the asynchronous response of plant species. Graduate Student Conference, TXST, San Marcos, TX. April 2024. (*poster*)

^**Chaudhary**, T., ^Rowley, D., Fay, P.A., Yost, J.L., Martina, J.P. The asynchronous response of plant species controls grassland stability under prolonged fertilization. Department of Biology Bio-colloquium, TXST, San Marcos, TX. February 2024. (*poster*)

^Abolmaali, S.S., Kendall, A.D., Battaglia, M., Bourgeau-Chavez, L., Martina, J.P. Tracking terrestrial nutrients from rivermouths to the nearshore and coastal wetland ecosystems. American Geophysical Union Annual Meeting, San Fransisco, CA. December 2023. (*poster)*

^**Chaudhary, T**., ^Rowley, D., Fay, P., Veldman, J., Martina, J.P. Disturbance and nutrient addition reduce aboveground biomass resistance in a mesic grassland. Ecological Society of America Annual Meeting, Portland, OR. August 2023. (*poster*).

Chen, Q., *et al*. Multidimensional responses of ecological stability to eutrophication in grasslands. Ecological Society of America Annual Meeting, Portland, OR. August 2023. (*oral presentation*)

Calvo C., K. Elgersma, D.E. Goldberg, W.S. Currie, J.P. Martina. Biotic resistance across a nutrient gradient in experimental coastal wetlands. Ecological Society of America Annual Meeting, Portland, OR. August 2023. (*oral presentation*)

^**Rowley, D.W.**, P.A. Fay, W.E. Rogers, K.C. Flynn, ^T. Chaudhary, M.L. Treadwell, J.W. Veldman, J.P. Martina. Coupling remote sensing data with ground surveys of grassland communities following experimental nutrient deposition and disturbance. Ecological Society of America Annual Meeting, Portland, OR. August 2023. (*oral presentation*)

Calvo, C, M. Battaglia, L. Bourgeau-Chavez, W.S. Currie, K. Elgersma, D. Hyndman, A. Kendall, M. Sayers, J.P. Martina. Integrating Systems Models and Remote Sensing to Explore Aquatic Ecosystem Vulnerability to Global Change in Lake Huron. NASA Carbon Cycle and Ecosystems, Joint Science Workshop. College Park, Maryland. May 2023. (*poster* and *oral presentation*)

^**Chaudhary, T.**, ^Rowley, D., Fay, P., Veldman, J., Martina, J.P. Grassland aboveground productivity in response to nutrient addition and soil disturbances shows resistance depending on the season. TXST Graduate Student Research Conference, San Marcos, TX. April 2023 (*poster*).

^**Chaudhary, T.**, ^Rowley, D., Fay, P., Veldman, J., Martina, J.P. Resistance of grassland community productivity to nutrient addition and soil disturbance depends on season. TXST STEM Conference, San Marcos, TX. March 2023 (*poster*).

^**Martinez, A.D**., J.P. Martina, C. Calvo. Using a simulation model to test the competitive dominance of two invasive wetland species. TXST STEM Conference. San Marcos, TX. March 2023. (*poster*)

^**Fogel, B.**, P. Williamson, A. Castellanos, J.P. Martina. Analyzing the Effects of Climate Change on the Distributions of an Endangered Plant in East Texas Using Ecological Niche Modeling. TXST STEM Conference. San Marcos, TX. March 2023 (*poster*).

^**Vaquera, T.**, ^**Villarreal, R**., Calvo, C., Martina, J.P. Impact of Rising Temperatures and Increasing Nitrogen Input on Invasive *Phragmites australis* in Coastal Wetlands. TXST STEM Conference. San Marcos, TX., March 2023 (*poster*).

^**DeMent, J.**, J. Jensen, M. McGarrity, J.P. Martina. Remote Sensing of *Arundo donax* in Native Fish Conservation Areas of Texas. TXST STEM Symposium. San Marcos, TX. March 2023. (*poster*)

^**DeMent, J**., J. Jensen, M. McGarrity, J.P. Martina. Remote Sensing of *Arundo donax* in Native Fish Conservation Areas of Central Texas. TXST Biology Student Symposium. San Marcos, TX. February 2023. (*poster*)

^**Fogel, B.**, P. Williamson, A. Castellanos, J.P. Martina. Using Ecological Niche Modeling to Predict Distributions and Effects of Climate Change on Two Endangered Plant Species. TXST Biology Student Symposium. San Marcos, TX. February 2023 (*poster*).

^**Foulkes, T.A**., J.W. Veldman, J.P. Martina. Assessing soil carbon storage in Texas grasslands after 20 years of restoration. TXST Biology Student Colloquium. San Marcos, TX. February 2023 (*poster*)

^**Chaudhary, T.**, ^Rowley, D., Fay, P., Veldman, J., Martina, J.P. Resistance of grassland community productivity to nutrient addition and soil disturbance depends on season. Texas State University, Department of Biology Colloquium, San Marcos, TX. February 2023 (*oral presentation*).

^**Rowley, D.W.**, P.A. Fay, K.C. Flynn, J.P. Martina, M.L. Treadwell, W.E. Rogers. Mapping Grassland Plant Communities Subjected to Nutrient Influx and Disturbance using UAV Remote Sensing and Machine Learning. Society for Range Management Annual Meeting, February 12-16, 2023, Boise, ID.

^**Rowley, D.W**, P.A. Fay, K.C. Flynn, J.P. Martina, M.L. Treadwell, W.E. Rogers. Grassland Community Dynamics Are Altered Within the Same Growing Season Following Nutrient Addition and Disturbance. Society for Range Management Annual Meeting, February 12-16, 2023, Boise, ID.

^**DeMent, J.,** J. Jensen, M. McGarrity, J.P. Martina. Remote Sensing of the Invasive *Arundo donax* in Native Fish Conservation Areas of Central Texas. Texas Aquatic Plant Management Society Annual Conference, November 7-8, 2022, San Marcos, TX. (*Oral Presentation*)

^**DeMent, J**., J. Jensen, M. McGarrity, J.P. Martina. Remote Sensing of the Invasive *Arundo donax* in Native Fish Conservation Areas of Central Texas. Texas Society for Ecological Restoration Annual Conference, November 17-19, 2022, Austin, TX. (*Poster*)

^**Rowley, D.W**., P.A. Fay, K.C. Flynn, J.P. Martina, M.L. Treadwell, W.E. Rogers. UAV Remote Sensing Can Detect Changes in Grassland Plant Communities Subjected to Environmental Degradation. Texas Society for Ecological Restoration Annual Conference, November 17-19, 2022, Austin, TX. (*Winner, Best Graduate Student Poster*)

^**Amaya, J., ^Horan, E.**, Elgersma, K., Currie, B., Martina, J. Determining native plant recolonization success after invasive plant management using a simulation model. Texas Society for Ecological Restoration Annual Conference, November 17-19th, 2022, Austin, Texas. (*Poster*)

^**Fogel, B.**, Williamson, P., Castellanos, A., and Martina, J. P. Using ecological niche modeling to predict distributions of two endangered plant species, *Leavenworthia texana* and *Physaria pallida.* Texas Society for Ecological Restoration Annual Conference, November 17-19, 2022, Austin, TX. (*Poster*)

^**Chaudhary, T.**, Rowley, D., Fay, P., Veldman, J., Martina, J.P. Inter-annual and seasonal variation in grassland community, structure, and productivity following nutrient addition and disturbance. Texas Society of Ecological Restoration Annual Conference, Nov 17-19, 2022, Austin, Texas. (*Poster*)

^**Foulkes, T.A.**, J.W. Veldman, J.P. Martina. Assessing soil carbon storage in Texas grasslands after 20 years of restoration. Texas Society for Ecological Restoration Annual Conference, November 17-19, 2022, Austin, TX. (*Poster*)

^**Rowley**, **D.W**., P.A. Fay, K.C. Flynn, J.P. Martina, M.L. Treadwell, W.E. Rogers. Grassland Community Dynamics Are Altered Within the Same Growing Season Following Nutrient Addition and Disturbance. Texas Section Society for Range Management, October 19-21, 2022, Denton, TX.

^**Rowley**, **D.W**., P.A. Fay, K.C. Flynn, J.P. Martina, M.L. Treadwell, W.E. Rogers. Grassland Community Dynamics Are Altered Within the Same Growing Season Following Nutrient Addition and Disturbance. Texas A&M University, Ecology and Conservation Biology Fall 2022 Spotlight Seminar Series, College Station, TX.

^**Rowley**, **D.W.** P.A. Fay, K.C. Flynn, J.P. Martina, M.L. Treadwell, W.E. Rogers. Immediate Changes to Grassland Community After Nutrient Addition and Disturbance. 2022 Great Plains Fire Summit & Patch Burn Grazing Conference, North Platte, NE. August 23-25, 2022. (*Poster*)

^**Rowley,** D.W., P.A. Fay, K.C. Flynn, J.P. Martina, M.L. Treadwell, W.E. Rogers. Immediate Changes to Grassland Community After Nutrient Addition and Disturbance. 2022 ECCB Open House, Texas A&M University, College Station, TX. August 22, 2022. (*Poster*)

Ladouceur, E., *et al*. Linking changes in species composition and biomass in a globally distributed grassland experiment. International Association of Vegetation Science (IAVS). Special session on 'Ecological stability, from vegetation science to ecosystem process', Madrid, Spain, & given at Frontiers in Experimental Research Conference at UFZ, in Leipzig, Germany. July 2022.

Sharp, S.J., K.J. Elgersma, J.P. Martina, Y. Yuan, W.S. Currie. Nutrient loading regime determines N and P limitation and alters ecosystem function in simulated coastal wetlands along a climate change gradient. American Geophysical Union Fall Meeting. Virtual. December 2020. (*eLightning Poster*)

^**Yuan Y**, S.J. Sharp, J.P. Martina, K.J. Elgersma, W.S. Currie. Modeling the effects of nitrogen and hydroperiod on greenhouse gas emissions in Great Lakes coastal wetlands. American Geophysical Union Fall Meeting. Virtual. December 2020. (*Poster*)

Kendall, A.D., M. Battaglia, L.L. Bourgeau-Chavez, W.S. Currie, K.J. Elgersma, D.E. Goldberg, Q.F. Hamlin, D.W. Hyndman, S.L. Martin, J.P. Martina, S.J. Sharp, L. Wan. Connecting landscape-applied nutrients to widespread coastal wetland invasion across the Laurentian Great Lakes. American Geophysical Union Fall Meeting. Virtual. December 2020. (*eLightning Poster*)

Sharp, S.J., ^Y. Yuan, A. Kendall, K.J. Elgersma, S. Martin, L. Wan, J.P. Martina, and W.S. Currie. Mapping watershed nitrogen removal in emergent wetlands of the Great Lakes. The Stewardship Network Conference. East Lansing, MI. January 2020. (*poster*)

Currie, W.S., K.J. Elgersma, J.P. Martina, S.J. Sharp and ^Y. Yuan. Modeling nutrient cycling and retention in wetlands as a simultaneous driver and outcome of ecosystem self-organization. American Geophysical Union Fall Conference, San Francisco, CA. December 2019. (*poster*)

Sharp, S.J., K.J. Elgersma, J.P. Martina, D.E. Goldberg, W.S. Currie. Disentangling interactions of Phragmites invasion, hydrology and nutrient loading helps predict N-removal in freshwater coastal

wetlands. Annual Meeting of the Ecological Society of America. Louisville, KY. August 2019. (*oral presentation*)

Currie, W.S., K.J. Elgersma, J.P. Martina, S. Sharp, D.E. Goldberg. Plant functional traits, community composition, and environmental conditions combine to produce ecosystem-level N cycling dynamics in an individual-based model of wetlands. Annual Meeting of the Ecological Society of America. Louisville, KY. August 2019. (*oral presentation*)

^**Yuan, Y.**, S. Sharp, J.P. Martina, K.J. Elgersma, W.S. Currie. Hydroperiod and water levels effects on GHG exchanges in Great Lakes coastal wetlands. Annual Meeting of the Ecological Society of America. Louisville, KY. August 2019. (*poster*)

Bourgeau-Chavez, L.L., W.S. Currie**,** K.J. Elgersma, D.E. Goldberg, D.W. Hyndman, J.P. Martina. Human and environmental effects on Great Lakes coastal ecosystems. NASA Land Cover Land Use Change Program. Rockville, MD. May 2019. (*poster*)

Sharp, S., K.J. Elgersma, J.P. Martina, W.S. Currie, D.E. Goldberg. Hydrologic drivers of N-removal and *Phragmites* invasion of Great Lakes coastal wetlands. The Stewardship Network: Restoring Native Ecosystems Conference. East Lansing, MI. January 2019. (*oral presentation*)

^**Jameson, E.,** K.J. Elgersma, J.P. Martina, D.E. Goldberg. More invasive cattails allocate less to sexual reproduction and are less plastic over nutrient gradients. Annual Meeting of the Ecological Society of America. New Orleans, LA. August 2018. (*poster presentation*)

Goldberg, D.E., E. Batzer, J.P. Martina, K.L. Elgersma. Allocation to clonal growth: approaches and questions. 12th Clonal Plant Symposium. Brunswick, ME. July 2018. (*oral presentation*)

Currie, W.S., J.P. Martina and K.J. Elgersma. The Mondrian model: Introduction of an interactive web-based tool for Great Lakes coastal wetland management and restoration. Presented to the United States Geological Survey. Michigan Tech Research Institute, MI. June 2018. (*oral presentation*)

Currie, W.S., K.J. Elgersma, J.P. Martina, and L.L. Borgeau-Chavez. The Mondrian model: a tool to develop an adaptive management framework to restore invaded wetlands. The Stewartship Network: Restoring Native Ecosystems Conference. East Lansing, MI. January 2018. (*oral presentation*)

Currie, W.S., K.J. Elgersma, J.P. Martina, and L.L. Borgeau-Chavez. The Mondrian model: a tool to develop an adaptive management framework to restore invaded wetlands. International Association of Great Lakes Researchers (IAGLR). Detroit, MI. May 2017. (*oral presentation*)

^**Coulter, S.,** J. Hall and J.P. Martina. Deep sea ocean oil degradation: varying nutrient levels in efforts to increase anaerobic oil degradation rates. OLLU McNair Scholars and Student Research Symposium. San Antonio, TX. April 2017. (*oral presentation*)

^**Ramirez, R.** and J.P. Martina. Investigating the effects of propagule pressure and biotic resistance on the invasion success of *Typha* x *glauca* across a nitrogen gradient using a simulation model. Society of Wetland Scientists Annual Meeting. Corpus Christi, TX. May-June 2016. (*poster*)

^**Ramirez, R.** and J.P. Martina. Investigating the effects of propagule pressure and biotic resistance on the invasion success of *Typha* x *glauca* across a nitrogen gradient using a simulation model. OLLU McNair Scholars and Student Research Symposium. San Antonio, TX. April 2016. (*oral presentation*)

Currie, W.S., L.L. Bourgeau-Chavez, K.J. Elgersma, N.H.F. French, D.E. Goldberg, S.K. Hart, D.W. Hyndman, A.D. Kendall, S.L. Martin, J.P. Martina. Nutrient-driven plant invasions in wetlands around the Michigan coastline: Using satellite and field data to test model linkage across scales. Annual Meeting of the Ecological Society of America. Baltimore, MD. August 2015. (*oral presentation*)

Elgersma, K.J., Martina, J.P., Currie, W.S. and D.E. Goldberg. Native wetland plants provide biotic resistance against non-native cattail invasion in oligotrophic and eutrophic wetlands. Annual Meeting of the Ecological Society of America. Baltimore, MD. August 2015. (*poster*)

Elgersma, K.J., Martina, J.P., **Currie, W.S.** and D.E. Goldberg. Assessing ecosystem services provided by restored wetlands under current and future land-use scenarios. UM Water Center Annual Meeting, Ann Arbor, MI. July 2015. (*poster*)

Currie, W.S., L.L. Bourgeau-Chavez, K.J. Elgersma, N.H.F. French, D.E. Goldberg, S. Hart, D.W. Hyndman, A.D. Kendall, S.L. Martin, J.P. Martina. Modeling water levels, nutrient inflows, plant invasions and C storage in coastal Great Lakes wetlands. University of Michigan Biological Station Winter Research Meeting. Ann Arbor, MI. February 2015. (*oral presentation*)

***Currie, W.S.**, L.L. Bourgeau-Chavez, K.J. Elgersma, N.H.F. French, D.E. Goldberg, S. Hart, D.W. Hyndman, A.D. Kendall, S.L. Martin, J.P. Martina. Linking a large-watershed hydrogeochemical model to a wetland community-ecosystem model to estimate plant invasion risk in the coastal Great Lakes region, USA. American Geophysical Union Fall Meeting. San Francisco, CA. December 2014. (*oral presentation*)

Elgersma, K.L., J.P. Martina, W.S. Currie, D.E. Goldberg. Nitrogen loading in Great Lakes coastal wetlands affects N retention, plant community composition, and non-native invasion success. Annual Meeting of the Ecological Society of America. Sacramento, CA. August 2014. (*oral presentation*)

^**Batzer, E.E.,** D.E. Goldberg, J.P. Martina, K.J. Elgersma. Clonal reproduction within Cyperaceae: Allocation, translocation, and response to nutrient availability. Annual Meeting of the Ecological Society of America. Sacramento, CA. August 2014. (*poster*)

Elgersma, K.L., **J.P. Martina**, W.S. Currie, D.E. Goldberg. Assessing ecosystem services provided by restored wetlands under current and future climate and land-use scenarios. University of Michigan Water Center Annual Meeting, Ann Arbor, MI. June 2014. (*poster*)

Elgersma, K.L., J.P. Martina, W.S. Currie, D.E. Goldberg. Effect of nutrients on invasive wetland plant establishment and competition between native and invasive plants. 3rd Annual Winter Research Meeting, U of M Biological Station, Ann Arbor, MI. February 2014. (*oral presentation*)

Elgersma, K.L., J.P. Martina, W.S. Currie, D.E. Goldberg. Wetland responses to nutrient inputs: community composition, nutrient retention, and invasion risk. 98th Annual Meeting of the Ecological Society of America. Minneapolis, MN. August 2013. (*poster*)

Currie, W.S., D.E. Goldberg, J.P. Martina. Exploring interwoven cause and effect in nutrient cycling, plant size, and invasion success in a wetland community-ecosystem model. Society of Wetland Scientists North Central Chapter Meeting. Indiana Dunes National Lakeshore, IN. September 2012. (*oral presentation*)

***Goldberg, D.E.**, K.J. Elgersma, W.S. Currie, J.P. Martina. Building an integrated program to understand wetland plant invasions. Society of Wetland Scientists North Central Chapter Meeting. Indiana Dunes National Lakeshore, IN. September 2012. (*oral presentation*)

von Ende, C.N. and J.P. Martina. Highly plastic response in morphological and physiological traits to light, soil-N and moisture in the model invasive plant, *Phalaris arundinacea*. Wisconsin Wetland Association's 17th Annual Wetland Conference. Lake Geneva, WI. February 2012. (*poster*)

Webinars and Other Online Products

Martina, J.P., Currie, W.S., and K.J. Elgersma. A primer on the user-friendly Mondrian model for wetland ecology and invasive species management. Hosted by the Great Lakes *Phragmites* Collaborative. July 2018. https://www.greatlakesphragmites.net/resources/webinars/

Phragmites Management Look-Up Table: A Tool for *Phragmites* Adaptive Management Strategies. Developed by the Mondrian Team. https://sites.google.com/uni.edu/phragmiteslookuptable

Mentoring and Supervising Experience

Postdoctoral Scholars
Taofeek Muraina, Ph.D. (2024 – 2025)
Clementina Calvo, Ph.D. (2022 – 2024)

Graduate Students Currently Advised
Tilak Chaudhary (Ph.D. Candidate)
Sabina Prajapati (Ph.D. Candidate, co-advised w/ Dr. Schwinning)
Christopher Riggins (Ph.D. Student)
Alyssa Haram (Ph.D. Student, co-advised w/ Dr. Chris Serenari)
Sabrina Sanders (M.S. Student, thesis)
June Shaukat (M.S. Student, thesis)
Kate Morton (M.S. Student, thesis)
Lindsay Peck (M.S. Student, thesis)
Annaclaire Kepple (M.S. Student, thesis)
April Coulon (M.S. Student, thesis)
Courtney Cloyd (M.S. Student, thesis, co-advised w/ Dr. Clay Green)
Soljar Yadav (M.S. Student, non-thesis)

Past Graduate Students Advised

- Scarlett Pickens (M.S. Student, non-thesis) – Graduated Fall 2025
- Christopher Riggins (M.S. Student, thesis) – Graduated Fall 2025
  Thesis title: *Macrophyte Community Response to Restoration Efforts, Flow Conditions, and Recreational Pressure in the San Marcos River*
- Jenna DeMent (M.S. Student, thesis) – Graduated Spring 2024
  Thesis title: *Mapping and Estimating Expansion Rates of Arundo donax in Native Fish Conservation Areas in Central Texas*

- Traci Foulkes (M.S. Student, thesis) – Graduated Fall 2023
  Thesis Title: *Assessing the Soil Carbon Storage Potential of Texas Grasslands After 20 Years of Restoration*
- Brianna Fogel (M.S. Student, thesis) – Graduated Spring 2023
  Thesis Title: *Using Ecological Niche Modeling to Predict Distributions and Effects of Climate Change on Two Endangered Plant Species, Leavenworthia texana and Physaria pallida*
- Megan Herod (M.S. Student, thesis) – Graduated Fall 2022
  Thesis Title: *Environmental Factors Influencing the Spread and Successful Invasion of* Arundo donax *in Central Texas*
- Anthony Omofoma (M.S. Student, non-thesis) – Graduated Fall 2021

Graduate Student Thesis Committee Member
Bria Marty (Ph.D. Student, *McCracken, Texas A&M – Corpus Christi*)
Hannah Bates (Ph.D. Student, *Nowlin*)
Kayla Sustaita (M.S. Student, *Schwinning*)
Owen Moorhead (M.S. Student, *Schwinning*)
La Kayla Harris (M.S. Student, non-thesis)
Elijah Wheat (M.S. Student, *Huertas*) – Graduated Summer 2026
Ailish Collins (M.S. Student, *Nowlin*) – Graduated Summer 2026
Silas Jenkins (M.S. Student, *Schwinning*) – Graduated Fall 2025
Emma Clow (M.S. Student, *Ikehata*) – Graduated Summer 2024
Natalie Villafranca (M.S. Student, *Fuess*) – Graduated Spring 2023
Emily Lorkovic (M.S. Student, *Schwalb*) – Graduated Spring 2023
Shelby Conway (M.S. Student, *Lemke*) – Graduated Spring 2022
Joseph Plappert (M.S. Student, *Veech*) – Graduated Fall 2021
Michael McClellan (M.S. Student, non-thesis) – Graduated Fall 2021

Undergraduate Research Project Advisor (TXST-BIO 4299 or Honors Thesis)
Eros Baua (graduated Fall 2025)
Rebecca Villarreal (graduated Fall 2024)
Emily Vanderworth (Honors Thesis; Fall 2024)
Emily Horan (graduated Fall 2022)
Sydney Scace (graduated Spring 2022)
Alex Badgwell (graduated Spring 2021)
Ryan Kridler (graduated Fall 2021)

Honors College Thesis Reader or Honors Course Credit
Shalimar Braddy (Global Change Biology, Fall 2025)
Autumn Wysocki (Second Thesis Reader, Fall 2022)
J'Lynn Washington (Global Change Biology, Fall 2022)

Current Texas State University Undergraduate Students (Paid Research Assistants)
Amanda Abels, Avery Madsen

Past Texas State University Undergraduate Students
Michael Alverson (2026), Catie Ritchey (2025-26), Courtney Cloyd (2026), Alexis Jacobs (2026), Mason Danel (2026), Eros Baua (2024-2026), Titan Ferguson (2025-2026), Jayce Hazell (2025-2025), Gwyn Boyden (2024-2025), Yovani Valdes (2023-2024), Andrew Martinez (2021-2023), Courtney Velasquez (2022-2023), Claudia Smith (2022-2023), Emily Horan (2021-2023), Sydney Scace (2021-

2022), Ryan Kridler (2020-2022), Alex Badgwell (2020-2022), James Caulfield (2020-2021), Sabrina Sanders (2020-2021), Claudia Arias (2020), David Molnar (2019-2020), Jair G-Aviles (CoSE Undergraduate Research Program, 2020)

Coastal Ecohydrology Training Undergraduate Program (CETUP) trainees (project funded by NASA)
2023 Cohort: Ava Miller, Annali Hohertz, Anabel Martinez, Emily Vanderworth, Victoria Ramirez, Chevy De La Serna
2022 Cohort: Andrew Martinez, Emily Horan, Jessica Amaya, Rebecca Villarreal, Trinity Vaquera, Daniel Carlton

Texas A&M University
Research Assistants (November 2017 – August 2019). I supervised four undergraduates, Grace Vielleux, Ryan Doner, Michael Behrendt, and Aaron Banks, in modelling management scenarios associated with Great Lakes coastal wetlands research.

Our Lady of the Lake University
Undergraduate Capstone Project (May 2015 - May 2017). I mentored three senior undergraduates (Ramiro Ramirez (2015), Danielle Herrera (2015), and Sydney Coulter (2016)) in independent research on invasive plant ecology and oil degradation by microbes.

Independent Study Mentorship Program at John Jay High School (August 2015-May 2016). I mentored Carter Guffey (Senior, JJHS) in independent research using a greenhouse study to examine the effects of crop plant biodiversity on ecosystem function.

Honors Capstone Thesis (January – May 2016). I was the faculty advisor for Valarie Villarreal's senior honors thesis, titled "The Unknown Future of the Banana".

University of Michigan
Full-time and Part-time Research Assistants (May 2012 – August 2014). I supervised Derek Ager, Evan Batzer, Hannah Reses, Jerry Tyrell, and Paige Meyers in field and lab techniques associated with Great Lakes coastal wetlands research (postdoctoral research).

Michigan State University
Undergraduate Field and Lab Assistants (May 2010 – January 2012). I supervised Matt Chansler, Matt Kolp, and Claire Taylor (undergraduates, Plant Biology) in field and lab techniques associated with inland wetlands research (dissertation project).

Undergraduate Field and Lab Assistant (May 2009-May 2010). I mentored Ryan O'Connor (undergraduate, Zoology) in independent research and lab and field techniques.

Undergraduate Senior Project (August 2007-May 2009). I mentored two senior undergraduates (Colin Phillippo and Spencer Rubin) in the Department of Plant Biology in independent research in both field and laboratory techniques leading to the completion of their senior projects.

Program for Undergraduate Research in the Life Sciences (PURL) (August 2007-May 2008). I mentored seven undergraduates who rotated through the Turetsky lab (MSU) in wetland biogeochemistry techniques, as well as basics in scientific methodology and inquiry.

Graduate Student Achievements

Sabina Prajapati, Ann Miller Gonzalez Research Grant, Native Plant Society of Texas ($2500), 2026
Tilak Chaudhary, Ann Miller Gonzalez Research Grant, Native Plant Society of Texas ($2500), 2026
Sabina Prajapati, PEO International Peace Scholarship, Fall 2025
Tilak Chaudhary, TXST Doctoral Research Support Fellowship ($5000), 2025
Alyssa Haram, Glenn Longley Lions Club Scholarship, 2025
Sabina Prajapati, Best Poster, TXST Biology Colloquium, Spring 2025
Sabina Prajapati, Ann Miller Gonzalez Graduate Research Grant, Native Plant Society of Texas, 2024
Sabrina Sanders, Best Student Presentation, TAPMS Conference, 2024
Tilak Chaudhary, TXST Doctoral Retention Scholarship, 2023-2024
Tilak Chaudhary, 1st Place – graduate student poster, TXST STEM Conference, Spring 2023
Brianna Fogel, USFWS Directorate Fellow Program, 11-week internship, Summer 2022
Brianna Fogel, 2nd Place, Three Minute Thesis (3MT) Competition, Texas State University, Fall 2022
Jenna DeMent, David Allen Bass Scholarship, Texas Aquatic Plant Management Society, 2022

University Service

Director, Integrative and Applied Biology PhD program, Dept. of Biology, TXST, 2024-present
Faculty Awards Committee, Dept. of Biology, TXST, 2025-present
Biology Graduate Committee, TXST, 2024-present
Greenhouse Committee, Department of Biology, TXST, 2021-present
Biology Chair Search Committee, Department of Biology, TXST, 2023-2025
Presenter, Faculty Development – New Postdoc Orientation, TXST, 9/06/2024
Presenter, Faculty Focus – Providing Effective Feedback on Grad Student Writing, TXST, 2/22/2024
Promotion for NTL Faculty Committee, Department of Biology, TXST, 2023-2024
Strategic Planning Committee – Department of Biology, TXST, 2021-2023
Faculty reviewer for the Undergraduate Research Fellowship program, TXST, 2019-2022
Environment and Sustainability Committee, Faculty Senate Committee, TXST, 2021-2022
Graduate College's Outstanding Thesis Award Committee in the Life Sciences, TXST, 2021
Women in Science and Engineering (WiSE) poster judge, TXST, 2020
Faculty advisor for *Ecology and Evolutionary Biology Independent Student Organization*, a TAMU graduate student organization, 2017 - 2019
Faculty advisor for *Earth Club*, an OLLU student organization, 2015-2016
Honors Faculty Council, Our Lady of the Lake University, 2014-2016
Panelist, Professional Development Series: Exploring Academic Publishing, OLLU, February 10, 2015
Graduate Student Organization (Plant Biology) Treasurer, MSU, 2009-2012
Dean's Student Advisory Council Plant Biology Representative, MSU, 2008-2009
Graduate Student Organization (Plant Biology) President, MSU, 2007- 2008
Biogeochemistry Environmental Research Initiative (BERI) Coordinator, MSU, 2007-2008

Major Research and University Coordinating Activities

Texas State University

DRAGNet, Site PI, USDA-ARS, Temple, TX	2020-present
Nutrient Network, Site PI, USDA-ARS, Temple, TX	2019-present
TPWD Pineywoods Landowner Workshop, San Augustine County, TX	February 2024

Texas A&M University

EEB Core Modules (EEBL 601-608)	2017 – 2019

Open Source for Open Science Workshop	2016 – 2019
EEB Recruiting Weekend	2016 – 2019
EEB and ABS Seminar Series	2016 – 2019
Darwin Day	2016 – 2019
4th Southeast Texas Evolutionary Genetics and Genomics Symposium	2019

Professional Service and Membership

Committees

Chair, Edwards Aquifer Habitat Conservation Plan, Science Committee, 2022 – Present
Alternate, Westside Creeks Restoration Oversight Committee, San Antonio River Authority, 2014-2016

Journal Editorial Contribution

Editorial Board Member, *Scientific Reports*, published by Nature Portfolio, 2022 – Present

Ad hoc Manuscript Reviewer for *Ecology Letters, Global Change Biology, Journal of Ecology*, *PNAS, Wetland Ecology and Management*, *Oecologia*, *Brazilian Journal of Botany*, *Communications Biology*, *Freshwater Biology*, *Science of the Total Environment*, *Plant Ecology, Ecology and Evolution*, *Ecological Applications*, *Biogeochemistry, Scientific Reports, PLOS ONE, New Phytologist, Ecosphere, Chemistry and Ecology*, *Geoderma, Aquatic Sciences, Weed Research, Flora, Soil Science Society of America Journal, Ecological Engineering, Restoration Ecology*

Grant Review

Proposal Review Panel Participant for NASA Carbon Monitoring System Panel – 2023
External Proposal Reviewer for the French National Research Agency (ANR) "Terre vivante"– 2021
Proposal Review Panel Participant for DOE Environmental System Science – 2021
External Proposal Reviewer for Graduate Women in Science Fellowships – 2018, 2019
External Proposal Reviewer for NSF Division of Environmental Biology – Ecosystems 2017
External Proposal Reviewer for Maryland Sea Grant College Program 2015

Conference symposia/sessions organized

- American Geophysical Union 2020 Annual Conference Session titled: Understanding impacts of climate, land use, and hydrologic linkages from the land to the shore on coastal ecology
- Society of Wetland Scientists 2016 Annual Conference Symposium titled: Ecosystem management impacts on biogeochemical cycling in wetlands

Reports

Reviewer for the Species Status Assessment Report for Texas golden gladecress (*Leavenworthia texana*). U.S. Fish & Wildlife Service. 2022

Memberships

Society of Wetland Scientists (Member)
Served as Chair of the Biogeochemistry Section from 2014-2017
Society for Ecological Restoration (Member)
Ecological Society of America (Member)
American Geophysical Union (Member)

Sigma Xi (Full member)

Phi Kappa Phi (graduate, MSU Chapter)
Golden Key International Honour Society (graduate, MSU Chapter)
Golden Key International Honour Society (undergraduate, NIU Chapter)