Jason Philip Martina

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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

2019 – present	**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 CPA Texas Endangered Species Management Research, "Quantifying recreation and drought perturbations on endangered species of the San Marcos River and expanding system resilience downstream with native submerged aquatic vegetation cover", submitted November 2022. *Co-Principal Investigator*
- NASA Interdisciplinary Research in Earth Science Program, "Ecosystem function and resilience to changes in climate, water level, land use, and species invasion across the land-Great Lakes continuum". Submitted November 2022. *Co-Principal Investigator*

Funded Proposals:

- 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 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. 2021-2023 *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.

Proposals not funded:

- USDA CRP Climate Change Mitigation Assessment Initiative, "Exploring the climate change mitigation potential of Conservation Reserve Program grasslands by assessing the relationship between vegetation communities and soil carbon sequestration", submitted July 2021, *Co-Principal Investigator*
- NASA Carbon Cycle Science, "Understanding the Effects of Changes in Land Management, Climate, and Hydrology on Carbon Dynamics from Great Lakes Watersheds to Coastal Wetlands", submitted December 2020, *Co-Principal Investigator*
- DOE Environmental System Science, "Simulating the Dynamic Effects of Perturbations on Ecosystem Function Along the US Great Lakes Terrestrial Aquatic Interface", Submitted December 2020", pre-application *Co-Principal Investigator*
- NSF EAGER SAI, "Optimizing Post-buyout Land Use to meet Stakeholder Needs though Ecological and Structural Infrastructure", pre-application *Co-Principal Investigator*
- NASA Ocean Biology and Biogeochemistry, "Quantifying Great Lakes aquatic ecosystem vulnerability to climate change by integrating systems models and remote sensing", submitted July 2020. *Co-Principal Investigator*
- National Science Foundation Division of Environmental Biology (DEB), "The physiological responses underlying grassland community and ecosystem responses to soil nitrogen", submitted December 2019. *Co-Principal Investigator*
- Texas State University Research Enhancement Program, "Assessing soil carbon storage potential of Texas grasslands after 20 years of restoration". *Principal Investigator*
- National Science Foundation Frontier Research in Earth Sciences (FRES), "Carbon Fluxes Down the Hydrologic Connectivity Cascade: Cross-scale Interactions of Water, Nutrients, and Plants in Freshwater Wetlands", submitted February 2019

- Texas A&M University Tier One Program, "Creating and Integrating Sustainable Experiential Learning for Undergraduate and Graduate Students in Ecology and Evolutionary Biology", submitted March 2017
- National Science Foundation Ecosystem Science Pre-Proposal, "Canopy structure and standing litter-NPP feedbacks governing invasion dynamics, lateral colonization, and C accumulation in herbaceous coastal wetlands", submitted January 2015
- National Science Foundation MacroSystems Biology, "Carbon Fluxes Down the Hydrologic Connectivity Cascade: Cross-scale Interactions of Water, Nutrients, and Plants in Freshwater Wetlands", submitted April 2014
    - **Note**: Top 4 proposal, rated "Outstanding", recommended for funding, declined due to reallocation of funds

Smaller grants and fellowships:

- 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 Publications (*co-first author, ^ *denotes undergraduate student*)

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. Temperature seasonality and nutrient enrichment drive intra-annual community turnover in global grasslands. *Ecology* (*In Review*)

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. Long-term transformation of biomass in the grassland biome. *Science* (*In Revision*)

Siciliano-Martina, L., **J.P. Martina**, Dohnalik, E., Vielleux, G. Destabilization of reproductive behaviors in captive fennec foxes (*Vulpes zerda*). *Animal Reproductive Science* (*In Revision*)

Currie, W.S, L. Bourgeau-Chavez, K.J. Elgersma, P. Higman, **J.P. Martina,** S.J. Sharp and M. Vanderhaar. Wetland process modeling for adaptive management: Restoration of *Phragmites*-invaded coastal wetlands in the Great Lakes region. Special Issue of *Ecological Informatics (In Revision)*

Rogan, J., M.R. Parker, Z.B. Hancock, A.D. Earl, E.K. Buchholtz, K. Chyn, **J.P. Martina**, L.A. Fitzgerald. Paths to annihilation: Genetic and demographic consequences of range contraction patterns. *Scientific Reports* (*In Revision*)

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

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* https://doi.org/10.1007/s10530-022-02881-9

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

Yuan, Y., K.J. Elgersma, **J.P. Martina**, S. Sharp and W.S. Currie. 2021. 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

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

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

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

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

*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

Goldberg, D.E., E.E. 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

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

^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

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

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

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

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

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

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

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

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.

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.

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

Herod, M. and **J.P. Martina**. Environmental factors influencing the growth and resource allocation of the wetland plant invader, *Arundo donax.* (*In Prep*)

Martina, J.P., R. Ramirez, K.L. 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*)

Calvo, C., K.J. Elgersma, W.S. Currie, D.E. Goldberg, and **J.P. Martina**. The role of nitrogen inputs and biotic resistance during cattail (*Typha* spp.) invasion. (*In Prep*)

Martina, J.P., K.J. Elgersma, W.S. Currie, and 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. (*In Prep*)

Goldberg, D.E., K.J. Elgersma, L.L. Bourgeau-Chavez W.S. Currie, D.E., D.W. Hyndman, A.D. Kendall, S.L. Martin, **J.P. Martina,** S. Sharp. Using process-based modeling of expected distributions to assess the roles of biotic resistance and dispersal limitation in invasive spread. (*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 – 2022
Wetland Plant Ecology and Management (Lecture & Lab)	2020 – 2022
Ecology and Management of Aquatic Macrophytes (Lecture & Lab)	2020 – 2022
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

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

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)

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 in Martina Lab***)

^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., 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. 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
Clementina Calvo, Ph.D. (2022 – present)

Graduate Students Currently Advised
Tilak Chaudhary (Ph.D. Student)
Brianna Fogel (M.S. Student, thesis)
Traci Foulkes (M.S. Student, thesis)
Jenna DeMent (M.S. Student, thesis)
Sabrina Sanders (M.S. Student, thesis)

Past Graduate Students Advised
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
Alexandra Salinas (M.S. Student)
Kristen K. Sustaita (M.S. Student)
Silas Jenkins (M.S. Student)
Natalie Villafranca (M.S. Student)
Emily Lorkovic (M.S. Student)

Owen Moorhead (M.S. Student)
Shelby Conway (M.S. Student) – Graduated Fall 2022
Joseph Plappert (M.S. Student) – Graduated Fall 2021
Michael McClellan (M.S. Student, non-thesis) – Graduated Fall 2021

Undergraduate Research Project Advisor (TXST-BIO 4299)
Emily Horan (current)
Sydney Scace (graduated Spring 2022)
Alex Badgwell (graduated Spring 2021)
Ryan Kridler (graduated Fall 2021)

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

Current Texas State University Undergraduate Students
Emily Horan, Andrew Martinez, Claudia Smith, Courtney Velasquez

Past Texas State University Undergraduate Students
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)

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

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

Faculty reviewer for the Undergraduate Research Fellowship program, TXST, 2019-2022
Greenhouse Committee, Department of Biology, TXST, 2021-2022
Strategic Planning Committee – Department of Biology, TXST, 2021-2022
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 University Coordinating Activities

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
Member, 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

Manuscript Reviewer for *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
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)