

## **Curriculum Vitae - Gil Bohrer (he/him)**

### **Professor**

Department of Civil, Environmental and Geodetic Engineering (CEGE)  
The Ohio State University (OSU)

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### **EDUCATION**

Duke University, Durham, NC	Civil & Environmental Engineering	PhD,	2007
Duke University, Durham, NC	Computer Sci. in Eng. & Medicine	Certificate,	2007
Ben Gurion University, Israel	Life Sciences - Ecology Track	M.Sc., <i>Cum Laude</i>	2001
Ben Gurion University, Israel	Life Sciences	B.Sc., <i>Summa Cum Laude</i>	1998

### **ACADEMIC AND RESEARCH APPOINTMENTS**

6/2023-6/2024	Program Manager, Rotator (IPA, 1-year appointment, upcoming), <i>US Department of Energy, Environmental System Sciences</i>
2018-Present	Professor, <i>OSU, CEGE</i>
2014-2018	Associate Professor, <i>OSU, CEGE</i>
2008-2014	Assistant Professor, <i>OSU, CEGE</i>
2007-2008	Post-Doctoral Fellow, <i>Harvard University, Center for the Environment</i>
2002-2007	Graduate Research Assistant, <i>Duke University, Civil &amp; Environmental Engineering</i>
2003	Visiting Researcher, <i>University of Amsterdam, IBED, Amsterdam, Holland</i>
2000-2002	Data Scientist, <i>SupplyScience LTD (currently, NCR Corporation), Nathania, Israel</i>
1998-2000	Graduate Teaching and Research Assistant, <i>Ben Gurion University, Department of Life Sciences, Be'er Sheva, Israel</i>

### **UNIVERSITY CENTERS/PROGRAMS AFFILIATION AND LEADERSHIP ROLES**

2020 – Present	Affiliated Faculty, <i>OSU, Translational Data Analytics Institute (TDAI)</i>
2016 – Present	Affiliated Faculty, <i>OSU, Sustainability Institute (SI)</i>
2008 – Present	Affiliated Faculty, <i>OSU, Environmental Science Graduate Program (ESGP)</i>
2021 – 2023	Co-Director, <i>OSU, TDAI Community of Practice (CoP): Sensing-Driven Collaborative Science</i> <a href="https://tdai.osu.edu/research-action/communities-practice/sensing-driven-collaborative-science-research-community">https://tdai.osu.edu/research-action/communities-practice/sensing-driven-collaborative-science-research-community</a>
2013 – 2019	Co-Director, <i>OSU, Environmental Science Graduate Program</i> <a href="https://esgp.osu.edu/">https://esgp.osu.edu/</a>

### **RESEARCH INTERESTS**

Ecohydrology; Environmental Fluid Dynamics; Eddy Flux Measurements; Evapotranspiration; Greenhouse-Gas Emissions; Large-Eddy Simulations; Wind Dispersal and Movement Ecology; Wetlands; Forests.

### **AWARDS AND FELLOWSHIPS**

*OSU College of Engineering, Faculty Mentoring Award, 2023*  
*Springer Nature, Editor of Distinction - Author Service Award, 2022*  
*OSU College of Engineering, Harrison Faculty Award for Excellence in Engineering Education, 2020*  
*Hebrew University, Jerusalem, Lady Davies Fellowship Trust, Jacob and Lena Joels Memorial Foundation Award - Visiting Professor in the Life and Medical Sciences, 2016.*  
*Karlsruhe Institute of Technology, Institute of Meteorology and Climate Atmospheric and Environmental Research (IMK-IFU), MICMoR Visiting Scientist Fellowship, 2015*

OSU College of Engineering, Lumley Interdisciplinary-Research Award, 2014.  
Advances in Water Resources, Certificate of Excellence in Reviewing, 2014.  
OSU College of Engineering, Lumley Research Award, 2012.  
American Geophysical Union, Editors' Citation for Excellence in Refereeing for Journal of Geophysical Research-Biogeosciences in 2011.  
PADI Foundation Research Award (#181) – Project Title: *Eddy-flux measurements of evaporation from the coral-reef lagoon in the red sea*. 2009.  
Harvard University, Center for the Environment, John & Elaine French Fellowship, 2007-2008.

### **Synergistic Activity, University Service, Leadership – Highlights**

Ameriflux (Lawrence Berkeley National Laboratory, Department of Energy), National Core Flux Site PI;  
Member of *Year-of-Water-Fluxes Organizing Committee*; Member of *Data Advisory Committee*;  
*Organizer PI Meeting 2022*.  
ESS-DiVE (Department of Energy), member of *Archive Partnership Board* (2021-2023).  
NEON, member of *Surface Atmosphere Exchange Technical Working Group*.  
NASA, member of *Biological Diversity and Ecological Forecasting Working Group* (2018-2022).

Associate Editor, *Journal of Geophysical Research-Biogeosciences* (2014-Present).  
Review Editor, *2<sup>nd</sup> State of the Carbon Cycle Report (SOCCR)* (2017-2019).

Chair, *CEGE P&T Committee* (2020 – 2023).  
Co-Director, *TDAI Sensing-Driven Collaborative Science CoP* (2021-2023).  
Co-Director, *Environmental Science Graduate Program* (2013-2019)

### **Summary of Research Funding**

Funding sources: NSF, Department of Energy, NASA, Department of Agriculture, NOAA, USGS, Ohio Department of Natural Resources, Ohio Water Resources Center, Ohio Water Development Authority, Private industry.  
45 funded research projects since 2009. 14 funded training/outreach grants.  
Total grants: ~\$19.5M (my total direct-expenditure share of collaborative projects ~\$7.5M)

### **Summary of Publications**

164 Published/in-press peer-reviewed journal papers; 6 proceedings full/short papers; 6 book chapters.  
Google: H-index: 64; Citations: 14,284 (6/8/2023); WoS: H-index: 51, Citations: 10,576 (6/8/2023)  
43 invited/keynote presentations in international conference.  
>400 conference presentations/abstracts; 96 invited seminar talks.

## **TEACHING AND MENTORING**

### **Academic Courses**

OSU Course Number

2016-2022	<i>ENVENG 6220 Graduate – Data Analysis, OSU.</i>
2013-2018; 2020	<i>ENVENG/CIVILEN 5880 Graduate – CEGE Seminar, OSU.</i>
2013-2019	<i>ENVSCI 7899 Graduate – Environmental Science Graduate Program Seminar, OSU.</i>
2010; 2012; 2017; 2019-2023	<i>ENVENG 6218/5218/4218 Grad/Undergrad – Measurements and Modeling of Climate Change, OSU.</i>
2012-2015; 2020-2023	<i>CIVILEN 3160 Undergrad – Water Resources Engineering, OSU.</i>
2016-2019	<i>ENVENG 5130 Grad/Undergrad – Applied Hydrology, OSU.</i>
2011; 2018	<i>ENVENG 5217 Grad/Undergrad – Applied Mathematical Ecology, OSU.</i>
2010-2015	<i>ENVENG 5310 Grad/Undergrad – Ecological Engineering, OSU.</i>
2009-2011	<i>CIVILEN 2050 Undergrad - Fundamentals of Civil Engineering Data Analysis. OSU.</i>

## Academic Mentor

Post-Doc: Justine EC Missik (3/2021-); Jorge A Villa (2/2018-10/2019, Currently: Assist. Prof., UL Lafayette); Golnazalsadat Mirfenderesgi (8/2017-5/2018, Currently: Assist. Prof. of Practice, MAE, OSU); Ashley M Matheny (8/2016-8/2017 Currently: Associate Prof., UT Austin); Kay Stefanik (5/2014-8/2015, Currently: Assist. Director, Iowa Nutrient Research Center); Renato Frasson (1/2012-6/2015, Currently: Researcher, JPL); Somayah Dodge (2/2012-8/2013, Currently: Assist. Prof., UC Santa Barbara); Steve Garrity (6/2010-5/2011, Currently: Director, Product Management, NoiseAware); Vassilia Velissariou (2-12/2009).

Ph.D.: Theresia Yazbeck (CEGE, 8/2019-); Chante' Vines (CEGE, 8/2015-); Haley Kujawa (ESGP, 12/2019-8/2023, Currently: Postdoc, Aarhus University); Yang Ju (ESGP, 8/2017-12/2021, Currently: Developer, MathWorks); Camilo Rey-Sánchez (ESGP, 8/2014-12/2018, Currently: Assist. Prof. NC State); Golnazalsadat Mirfenderesgi (CEGE, 8/2013-8/2017, Currently: Assist. Prof. of Practice, MAE, OSU); Timothy Morin (ESGP, 6/2012-4/2017, Currently: Associate. Prof., SUNY ESF); Ashley Matheny (CEGE, 8/2012-8/2016, Currently: Associate Prof., UT Austin); William Kenny (ESGP, 9/2010-8/2015, Currently: OH EPA); Efthalia Chatziefstratiou (ESGP, 9/2010-12/2014, Currently: Lecturer, AZ State); Kyle Maurer (CEGE, 8/2011-5/2012, Currently: SC DHEC).

M.S. Thesis: Yvette Onyango (8/2021-); Madeline Scyphers (ESGP, 8/2021-1/2024); Theresia Yazbeck (CEGE, 8/2017-5/2019); Miriam Handler (ESGP, 1/2017-5/2018); Camilo Rey-Sánchez (CEGE, 8/2016-5/2018); Krystaal McClain (ESGP, 8/2013-8/2015); Liel Naor-Azrieli (ESGP, 9/2010-8/2013); Ashley Matheny (CEGE, 9/2009-4/2013); Kyle Maurer (CEGE, 6/2009-8/2011); Dekel Shlomo (CEGE, 9/2009-8/2011); Kunpeng Zhu (CEGE, 1/2010-8/2011); Anthony Bova (CEGE, 9/2008-6/2010).

## RESEARCH FUNDING

### Research Grants

#### Active

1. USDA ARS – *Eddy Covariance flux Processing for USDA ARS Oxford, MS* (Co-PI), with Golnaz Mirfenderesgi (PI), 2024-2029, \$62,654 (\$30,000)
2. ODHE Harmful Algal Bloom Research Initiative (ODHE HABRI) – *Enhancing ecosystem models to guide selection and placement of wetlands in the Western Lake Erie Basin* (Co-PI), with Joel Paulson (PI) Lorryne Miralha, Asmita Murumkar, Margaret Kalcic, 2024-2026, \$500,483 (\$125,000).
3. OSU TDAI Pilot- *OSU-DT-Engine – A community driven digital twin for geo-data exchange* (Co-PI), with Rogjun Qin (PI). Harvey Miller, Mark Bryan, Aaron Wilson, Karen Dannemiller, Aparna Dial, 2023-2024, \$50,000.
4. Department of Energy (DE-SC0023084) – *Decoding the unifying microbial metabolic controllers on soil carbon cycling across freshwater wetlands* (Co-PI), with Kelly Wrighton (PI), Bailey Fosdick, Mike Wilkins (CSU), Jorge Villa (ULA), Yu-Ping Chin (UDL), Sheel Bansal, Eric Ward (USGS), William Riley (LBNL), Christopher Henry (Argonne NL), 2022-2025, \$2,000,000 (\$692,095).
5. Mathworks – *Developing visualization tools for MPIAB's Movebank data portal* (PI), with Justine Missik (OSU), 2022-2024, (\$30,000).
6. Department of Energy (DE-SC0022191) – *Rewriting the Redox Paradigm: Dynamic hydrology shapes nutrient and element transformations in a Great Lakes coastal estuary* (Co-PI), with Lauren Kinsman-Costello (PI, Kent State U.), John Senko, Thomas Quick, Chelsea Monty-Bromer, Elizabeth Herndon, Tim Morin (SUNY ESF), Ethan Kubatko (OSU), 2021-2024, \$297,959 (\$9,998).
7. NASA Ecological Forecasting (80NSSC21K1182) – *Ecological forecasting tools for movement track management at the Yukon-to-Yellowstone migration corridor* (PI), with Roland Kays (NCSU), John Fieberg (U. MN), Y2Y end-user coalition (various Canadian and US agencies and NGOs), 2021-2025, \$874,265 (\$326,132).

8. Department of Energy (through Lawrence Berkeley National Laboratory, research contract 7560193) – *UM Biological Station Ameriflux Core Site Project* (PI), with Chris Gough (Virginia Commonwealth U.), Aimee Classen, (U. of Mich.), 2021-2025, \$1,285,236 (\$286,689).
9. Department of Energy (DE-SC0021067) – *Functional-type modeling approach and data-driven parameterization of methane emissions in wetlands* (PI), with Bill Riley (Berkeley Lab), Kelly Wrighton (Colorado State U.), Eric Ward (USGS, LA), Jorge Villa (U. Louisiana), 2020-2024, \$808,246 (\$395,743).
10. United States-Israel Binational Agricultural Research and Development Fund (BARD) (IS-5304-20) – *Optimal irrigation strategies informed by direct tree-water storage measurements* (Dual-PI), with Yair Mau (Hebrew U. Jerusalem), 2020-2024, \$310,000 (\$154,000).

#### Completed

11. NSF-CBET (2036982) – *NSF2026: EAGER: Spatio-temporal design of techno-ecological synergies for a world without waste and resilient landscapes* (Co-PI), with Bhavik Bakshi (PI, CBE), Joel Paulson (CBE), 2021-2023, \$299,943 (\$99,981).
12. NSF-DEB (1915909) – *Collaborative Research: Scale-dependent processes as the drivers for understanding range- and niche-expansion in a widespread native species* (Co-PI, Institutional PI), with David Ward (Kent State, Lead PI), Oscar Rocha (Kent State), Juliana Medeiros (Holden Arboretum), Sarah Supp (Denison U.), 2019-2023, \$914,000 (\$82,000).
13. USDA-NIFA-AFRI (20186701927803) – *Modeling fluxes fate and transport of ammonia emission from egg production and manure management facilities* (Co-PI), with Lingying Zhao (PI, FABE), Sewoon Hong, 2018-2022, \$497,000 (\$17,416).
14. NOAA (NA18NOS42000079) through OWC-NERR, administered by ODNR (Subaward N18B 315-11) – *Hydrological modeling of Old Woman Creek* (PI), with Ethan Kubatko, Margaret Kalcic (SENR), 2020-2021, \$37,965 (\$34,517).
15. Ohio Water Development Authority (7880) – *Predictive modeling of nutrient and carbon processing in wetlands – linking hydrology, water quality and microbial processes* (PI), with Kelly Wrighton (Colorado State U), Lauren Kinsman-Costello (Kent State), 2017-2021, \$199,925 (\$80,000).
16. Ohio Water Resources Center (G16AP00076) – *Linking wetland ecological functions: towards a combined ecosystem-service quantification to promote ecosystem health in Lake Erie* (Co-PI), with Jorge Villa (PI), 2019-2020, (\$39,710).
17. US Department of Energy Ameriflux (through Lawrence Berkeley National Laboratory, 7096915) – *UM Biological Station Ameriflux Core Site Project* (PI), with Peter Curtis, OSU, Chris Gough (Virginia Commonwealth U.), Knute Nadelhoffer, (U. of Mich), 2013-2020, \$1,646,900 (\$587,460).
18. NSF Biological Infrastructure (1564380) – *Collaborative research: ABI Sustaining: The Environmental-Data Automated Track Annotation (Env-DATA) system* (PI, Lead institution), with Roland Kays (NCSU), 2016-2020, \$451,042 (\$337,474).
19. US Forest Service (17-CR-11242302-050) – *Soil Heating in Sandy Ecosystems in the Southeastern US and Northern Wisconsin - Presence of Duff Violates a Key Assumption of the First Order Fire Effects Model's Soil Heating Module* (PI), 2017-2020, (\$15,070).
20. US Department of Energy (DE-SC0018170) – *Accounting for hydrological and microbial processes on greenhouse gas budgets from river systems* (PI), with Kelly Wrighton (Colorado State U.), James Stegen, (PNNL), 2017-2019, \$180,000 (\$90,000).
21. NSF-CBET (1508994) – *UNS: Collaborative Research: Measurement and modeling of the pathways of potential fugitive methane emissions during hydrofracking* (PI, lead institution), with Jeffrey Bielicki, Zuzana Bohrerova, Jaclyn Matthes (Wellesley College), Derek Johnson (West Virginia U), 2015-2019, \$330,000 (\$175,813).
22. NSF-Hydrological Science (1521238) – *Including tree water storage dynamics in modeling of stomatal conductance* (PI), with Ashley Matheny, 2015-2019, (\$496,537).
23. Ohio Water Resources Center (G16AP00076) - *Bog HELPR: Bog history, ecosystem status and land-use for peatland restoration in Ohio* (Co-PI), with Matt Davies. 2017-2019, \$28,123 (\$14,000).
24. NASA ABoVE (NNX15AT91A) – *Animals on the move: Remotely based determination of key drivers influencing movements and habitat selection of highly mobile fauna throughout the ABoVE study domain* (Co-PI, Institutional PI), with Natalie Boelman (PI, Columbia U.), Jan Eital (U Idaho),

- Lee Vierling Laura Prugh (U Washington), Mark Hebblewhite (U Montana), 2015-2018, \$1,536,289 (\$77,481).
25. Avangrid (PO 4503947933) - *The Dynamics of Ice Throws from Wind Turbine Rotors* (PI), 2017-2018, (\$9,900).
  26. OSU OARDC (2016-055 SEEDS) - *PRO Peat Bog: indicators for assessing the Potential for Restoration of Ohio's Peat Bog ecosystems*. (Co-PI), with Matt Davies, Virginia Rich. 2016-2018, \$98,184 (\$17,463).
  27. Ohio Water Development Authority (6560) – *Observations and modeling of wetland methane emissions* (PI), 2013-2018, (\$164,495).
  28. Ohio Water Development Authority (6835) – *Opening the microbial black box: Identifying microbial enzymatic control on carbon stability in Ohio Wetlands* (co-PI), with Kelly Wrighton (PI), 2014-2017, \$197,882 (\$15,000).
  29. Ohio Water Resources Center (G16AP00076) – *Baseline measurements of methane emissions from Piedmont Lake - current and future fracking area* (PI) 2016-2017, (\$51,207)
  30. Ohio Water Resources Center (6300) – *Baseline measurements of methane emissions from rivers and lake waters in the proposed site of the OSU hydrofracking research station* (PI), 2015-2018, (\$5,290).
  31. NSF-BIO Behavioral System (IOS-1145952) – *Collaborative Research: Modeling movement and survival of intercontinental songbird migrants crossing the Gulf of Mexico* (co-PI, Institutional PI), with Jill Deppe (PI, Eastern Illinois U), Thomas Benson (UIUC), Robert Diehl (USGS, Northern Rocky Mountain Science Center), Frank Moore (U. South. Miss.), 2012-2016, \$853,533 (\$41,497).
  32. USGS (G14AC00091) – *Improve wildlife species tracking: Implementing an improved GPS capture and delivery system for California condors* (co-Investigator), with Robert Waltermire (PI, USGS, CO), Pat Lineback, Joseph Brandt (USFWS). 2014-2015, \$93,261 (\$15,079).
  33. US Department of Energy-BER-Terrestrial Carbon Cycle Research (DE-SC0007041) – *Effects of disturbance on carbon sequestration in the New Jersey Pine Barrens* (Co-PI), with Karina Schäfer (PI, Rutgers U), Nick Skowronski (USDA Forest Service, NJ), Ken Clark, 2011-2015, \$518,000 (\$263,140).
  34. NSF CBET (CBET-1033451) – *Collaborative research: Greenhouse gas balance of temperate urban wetlands*, (co-PI, Institutional PI), with Karina Schäfer (PI, Rutgers University), William Mitsch (OSU), Mei Yin Wu (Montclair College). 2010-2015, \$321,000 (\$62,221).
  35. Department of Energy-BER-Terrestrial Carbon Cycle Research (DE-SC0006708) – *Forecasting carbon storage as eastern forests age: joining experimental and modeling approaches at the UMBS Ameriflux site* (co-PI) with Peter Curtis (PI), Chris Gough (Virginia Commonwealth U.), Knute Nadelhoffer (U. of Mich.), 2011-2014, \$1,030,766 (\$250,718).
  36. NASA-ROSES – Biodiversity and Ecological Forecasting (NNX11AP61G) – *Type B (application): Discovering relationships between climate and animal migration with new tools for linking animal movement tracks with weather and land surface data* (PI) with Roland Kays (NC State Museum), David Douglas (USGS, AK), Jiawei Han (UIUC), David Brandes (Lafayette College), Martin Wikelski (Max Planck Institute, Germany), 2011-2014, \$682,805 (\$612,296).
  37. NOAA-CPO (NA11OAR4310190) – *Improving process-level understanding of the factors underlying long-term trends and year-to-year variability in carbon sequestration of northeastern forests* (co-PI, Institutional PI), with Andrew Richardson (PI, Harvard U), William Munger, Peter Curtis (OSU), Danilo Dragoni (Indiana U), David Hollinger (USDA FS, NH), 2011-2014, \$524,736 (\$45,000).
  38. Ohio Water Resources Center (G11AP20099-2012OH259B) – *Green-House-Gas budget of constructed wetlands: Understanding the sources to maximize benefits* (PI), 2012-2014, (\$25,677).
  39. NSF-CBET (CBET-1311547) – *Collaborative Research: RAPID: Impact of disturbance from hurricane Sandy on methane emission and carbon sequestration rates in NJ coastal wetlands* (co-PI, Institutional PI), with Alper Yilmaz, OSU, Karina Schäfer (PI, Rutgers U.), Peter Jaffe (Princeton U.), 2012-2013, \$192,141 (\$70,200).

40. Ohio Water Resources Center (G11AP20099- 2011OH205B) – *The constructed wetland dilemma: Nitrogen removal at the expense of methane generation?* (Co-PI), with Paula Mouser (PI). 2011-2014, \$29,953 (\$5,000).
41. International Arid land Consortium (10R-05) – *Mitigating aeolian erosion from dry Aral Seabed with Haloxylon plantations*, with Somnath Baidya Roy (PI, UIUC), Sergei Volis (Ben Gurion U, Israel), Nikolai Orlovski, 2011-2012, \$85,601 (\$3582).
42. US Department of Agriculture-NIFA-AFRI (CSREES-OHOR-2009-04566) – *Large eddy simulations of PM dispersion to quantify the effects of windbreaks on air quality around CAFOs*. (PI), With Barbara Wyslouzil, Lingying Zhao, William Eichinger (U Iowa). 2010-2013, (\$399,961).
43. US Forest Service, Delaware, OH (09-CR-11242302-033) – *Physical models of fire behavior and effects in eastern mixed-oak forests* (PI), with Matthew Dickinson (USFS), 2009-2014, (\$120,937).
44. US Forest Service, East Lansing, MI, Joint Research Venture Agreement (10-JV-11242302-013) – *Smoke dispersion from low intensity fires: Large eddy simulations using RAFLES* (PI), with Warren Heilman (USFS), 2009-2013, (\$94,663).
45. NSF Ecosystem Science (DEB 0911461) – *Collaborative research: Linking heterogeneity of above-ground and subsurface processes at the gap-canopy patch scales to ecosystem level dynamics*. (Co-PI, Institutional PI), with Valery Ivanov (PI, U. of Mich.), Mahta Moghaddam, 2009-2013, \$576,709 (\$237,293).
46. NSF Ecological Biology (DEB-0918869) – *Collaborative research: How structural heterogeneity and connectivity of landscapes affect wind dispersal*. (Co-PI, Institutional PI), With Ellen Damschen (PI, Washington U. in St. Louis), Jay Turner, Dirk Baker. 2009-2012, \$165,085, (\$24,412).
47. Department of Energy-NICCR (DE-FC02-06ER64158) – *Disturbance, succession and forest carbon dynamics: a large-scale experiment at the University of Michigan Biological Station* (Co-PI) with Peter Curtis (PI), Chris Gough (Virginia Commonwealth U), Chris Vogel (U. of Mich.), 2009-2011, \$450,952 (\$115,267).
48. Institute for Energy and the Environment, OSU – *Identification and optimization of potential locations for wind-power turbines on the OSU campus* (PI), with Peter Curtis. 2009-2010, (\$49,729).

## **PUBLICATIONS AND PRESENTATIONS**

Co-author affiliations: \*\* my undergraduate student; \* my graduate student; # my post-doc/research scientist; + Co-supervised by me as a thesis committee member/research visit supervisor; ^ my participation as a data contributor to an Ameriflux/Fluxnet/NACP multi-site/model synthesis study.

### **Peer-Reviewed Journal Publications**

1. Yazbeck\* T, Bohrer G, Shcheglov# O, Ward E, Bordelon R, Villa JA, Ju\* Y. (2024). Implementing HLS-based wetland-vegetation classification in a land surface model improves methane emissions estimations. *Remote Sensing* 16:946 <https://doi.org/10.3390/rs16060946>.
2. Hassett E, Bohrer G, Kinsman-Costello L, Onyango\* Y, Pope T, Smith C, Missik# J, Eberhard E, Villa J, McMurray S, Morin TH. (2024). Changes in inundation drive carbon dioxide and methane fluxes in a temperate wetland. *Science of the Total Environment* 915:170089 <https://doi.org/10.1016/j.scitotenv.2024.170089>.
3. Richardson JL, Desai AR, Thom J, Lindgren K, Laudon H, Peichi M, Nilsson M, Campeau A, Järveoja J, Hawman P, Mishra DR, Smith D, D'Acunha B, Knox SH, Ng D, Johnson MS, Blackstock J, Malone SL, Oberbauer SF, Detto M, Wickland KP, Forbrich I, Weston N, Hung JKY, Edgar C, Euskirchen ES, Bret-Harte S, Dobkowski J, Kling G, Kane ES, Badiou P, Bogard M, Bohrer^ G, O'Halloran T, Ritson J, Arias-Ortiz A, Baldocchi D, Oikawa P, Shahan J, Matsumura M. (2024). On the relationship between aquatic CO<sub>2</sub> concentration and ecosystem fluxes in some of the world's key wetland types. *Wetlands* 44:1 <https://doi.org/10.1007/s13157-023-01751-x>.
4. Xenopoulos MA., Bohrer G, Chen J, Crill P, Niu S, Sahagian D, Tank S. (2023). 20 years of biogeosciences research: looking back to forge ahead. *Eos*, 104:235019 <https://doi.org/10.1029/2023EO235019> (Editorial, not peer reviewed).

5. Chatterjee N, Kölzsch A, Davidson<sup>#</sup> SC, Bohrer G, Fieberg J. (2023). Tracking predators by algorithm: A computerized workflow helps biologists identify kill sites. *The Wildlife Professional* 17(4):48-51 [https://wildlife.org/wp-content/uploads/2023/07/TWP\\_17.4\\_TOC.pdf](https://wildlife.org/wp-content/uploads/2023/07/TWP_17.4_TOC.pdf).
6. Wan Z, Dodge S, Bohrer G. Leveraging similarity analysis to understand variability in movement behavior. *Transaction in GIS* 27:1441-1466 <https://doi.org/10.1111/tgis.13082>.
7. Butterfield Z, Magney T, Grossmann K, Bohrer G, Vogel C, Barr S, Keppel-Aleks G. (2023). Accounting for changes in radiation improves the ability of SIF to track water stress-induced losses in summer GPP in a temperate deciduous forest. *Journal of Geophysical Research-Biogeosciences* 128: 2022JG007352 <https://doi.org/10.1029/2022JG007352>.
8. Yazbeck<sup>\*</sup> T, Bohrer G. Uncertainties in wetland methane-flux estimates (commentary). (2023). *Global Change Biology* 29:4175-4177 <https://doi.org/10.1111/gcb.16754>.
9. Hu<sup>+</sup> T, Zhang X, Bohrer G, Liu Y, Zhou Y, Martin J, Li Y, Zhao K. (2023). Crop yield prediction via explainable AI and interpretable machine learning: Dangers of black box models for evaluating climate change impacts on crop yield. *Agricultural and Forest Meteorology* 336:109458 <https://doi.org/10.1016/j.agrformet.2023.109458>.
10. Chen K, Chen X, Stegen J, Villa<sup>#</sup> JA, Bohrer G, Song X, Chang K-Y, Kaufman M, Liang X, Guo Z, Roden E, Zheng C. (2023). Vertical hydrologic exchange flows control methane emissions from riverbed sediments. *Environmental Science & Technology* 57:4014-4026 <https://doi.org/10.1021/acs.est.2c07676>.
11. Golub M, Koupaei-Abyazani N, Vesala T, Mammarella I, Ojala A, Bohrer<sup>^</sup> G, Weyhenmeyer GA, Blanken PD, Eugster W, Koebisch F, Chen J, Czajkowski K, Deshmukh CS, Guerin F, Heiskanen J, Humphreys E, Jonsson A, Karlsson J, Kling G, Lee X, Liu H, Lohila A, Lundin E, Morin<sup>\*</sup> T, Podgrajsek E, Provenzale M, Rutgersson A, Sachs T, Sahlee E, Serça D, Shao C, Spence C, Strachan IB, Xiao W, Desai AR. (2023). Diel, seasonal, and inter-annual variation in carbon dioxide effluxes from lakes and reservoirs. *Environmental Research Letters* 18: 034046 <https://doi.org/10.1088/1748-9326/acb834>.
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### Conference Presentations (Last 2 years)

- Gondran A, Jurgensen S, Bohrер G, Wrighton K, Villa J. Assessing the Contributions of macrophytes to greenhouse gas-flux dynamics in North American wetlands. Poster, 6/2024. *ASLO 2024 Meeting*, Madison, WI.
- Villa JA, Bordelon R, Taj D, Merino S, Ward E, G. Bohrер G. Plant-mediated transport of methane in dominant wetland plant species of the northern Gulf of Mexico. Poster, 6/2024. *ASLO 2024 Meeting*, Madison, WI.
- Borton KA, Jurgensen SK, Bechtold EK, Ellenbogen JB, Freiburger AP, Villa JA, Oliverio AM, Narrowe AB, Hoyt DW, Weitz KK, Tolic N, McGivern BB, Louie KB, Northern TR, Chin Y, Ward E, Bansal S, Henry C, Miller CS, Riley W, Morin TH, Lipton M, Bohrер G, Wilkins MJ, Wrighton KC. Decoding the unifying microbial metabolic controllers on soil carbon cycling across freshwater wetlands. Poster, 4/2024. *Department of Energy Genome Science Program PI Meeting*, Washington, DC.
- Davidson# SC, Kays R, Bohrер G, Safi K, Mueller T, Kolzsch A, Lohr A, Wikelski M. More than a 'bank': Using Movebank for collaborative research and applications. Poster, 3/2024. *The 8<sup>th</sup> International Biologging Science Symposium (BLS8)*, Tokyo, Japan.

6. [Bohrer G](#), Shcheglov# O, Yazbeck\* T, Ju\* Y, Villa J, Bordelon R, Scyphers\* M, Missik# JEC, Wrighton K, Ward E. Classification of Louisiana marshes vegetation based on a vegetation-greenness time series from the Harmonized Landsat Sentinel-2 dataset. Virtual Poster, 1/2024. *American Geophysical Union Annual Meeting*, San Francisco, CA.
7. Bordelon R, Diana Taj D, Villa J, Merino S, Ward E, Yazbeck\* T, [Bohrer G](#). Exploring methane flux in coastal Louisiana wetlands from a vegetative point of view. Oral Presentation, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
8. Davidson# SC, Chatterjee N, Missik# JEC, Kelly A, McLaren A, Russell K, Suito M, Fieberg J, [Bohrer G](#). Code-free open-source toolboxes and workflows to analyze animal movement data and model habitat selection. Oral Presentation, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
9. Ferreira JKDM, Jurgensen S, Bordelon R, Lelewi I, McGivern BB, Merino S, Ellenbogen J, [Bohrer G](#), Borton M, Ward E, Villa J, Wrighton K. Deciphering the biological determinants on methane cycling from Gulf Coast wetlands. Oral Presentation, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
10. Zhao K, Hu T, Zhang X, [Bohrer G](#), Liu Y, Zhou Y, Martin J, Li\* Y. Exploring nonlinear climate effects on crop yields and trends using Interpretable Machine Learning. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
11. Tang ACI, [Bohrer G](#), Forbrich I. Dynamics of ecosystem carbon fluxes in a freshwater estuarine wetland: implications of rising water levels and vegetation shift. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
12. Yazbeck\* T, [Bohrer G](#), Shcheglov# O, Ju\* Y, Scyphers\* M, Missik# JEC, Ward EJ, Bordelon R, Taj D, Villa JA, Wrighton K, Zhu Q, Riley WJ. Reducing uncertainty of wetland-greenhouse gas emissions in earth system models by including eco-hydrological patch types sub-grid representation coupled with Landsat Sentinel-2 derived patch distributions. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
13. Mau Y, Rez L, Missik# JEC, [Bohrer G](#), Feuer E. Impact of heat waves on irrigated fruit trees. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
14. Beverly DP, Crookshanks A, Biraud S, Baldocchi DD, [Bohrer G](#), Kannenberg S, Litvak ME, Scott R, Wood JD, Still CJ, Law BE, Hanson CV, Hawkins LR, Phillips RP, Novick KA. Quantifying the variation between site-specific soil water retention curves and the importance of soil water potential for predicting ecosystem flux. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
15. Onyango\* Y, [Bohrer G](#), Villa J, Morin TH, Gabor RS, Hassett E, Gaffney K, Missik# JEC, McMurray S, Cianci-Gaskill J, Morris# H. Interactions of greenhouse gases, dissolved organic carbon & hydrological regime of the Old Woman Creek wetland. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
16. Scyphers\* M, Missik# LEC, [Bohrer G](#), Paulson J. Showcasing Bayesian Optimization for Anything (BOA), a multi-scale, language-agnostic hyperparameter tuning package, applied to a hydrodynamic canopy transpiration model. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
17. Matheny AM, Restrepo Acevedo AM, Ulatowski M, Cabraal SA, Missik# JEC, Scyphers\* M, [Bohrer G](#). Sensing, synthesizing, and integrating plant ecohydrology for understanding and predicting vegetation responses to water stress. Oral Presentation, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
18. Roy\* C, Oliver Sonnentag O, [Bohrer G](#), Missik# JEC, Perron NS, Scyphers\* M, Nehemy M, Bruce Johnson B, Roy A. Understanding the hydraulic functioning of trees in the boreal forest using field measurements and FETCH, a numerical tree hydrodynamics model. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
19. Ward EJ, Sheel Bansal S, [Bohrer G](#), Daniel CJ, Krauss K, Liu J, Reed S, Sleeter BM, LaFosse Stagg C, Windham-Myers L, Villa J, Zhu Z. Monitoring and modeling ecosystem management as a nature-based climate solution along a dryland to wetland spectrum: Challenges and opportunities on federal lands. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
20. Missik# JEC, [Bohrer G](#), Scyphers M, Paulson J, Mau Y, Matheny AM, Restrepo Acevedo AM. Examining species-specific hydraulic traits using et measurements and the hydrodynamic canopy transpiration model FETCH3.14. Poster, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
21. Jurgensen S, Gondran A, Bechtold E, Oliverio A, Chorpennig C, Wettengel AM, Ellenbogen J, Henry CS, Riley WJ, Chin Y-P, [Bohrer G](#), Ward EJ, Bansal S, Wilkins MJ, Borton M, Villa J, Wrighton K. Knee-deep in MUCC: a multi-omics infrastructure to decode microbial soil carbon cycling in freshwater wetlands. Oral Presentation, 12/2023. *American Geophysical Union Annual Meeting*, San Francisco, CA.
22. Tang Y, Qin R, [Bohrer G](#), Miller H, Mark B, Wilson A, Dannemiller K, Dial A. OSU-Digital Twin-Engine: A community-driven digital twin for geo-data exchange. Poster, 11/2023. *Translational Data Analytics Institute Interdisciplinary Research Fall Forum*, Columbus, OH (won 3<sup>rd</sup> place best student poster competition).
23. Missik# J, [Bohrer G](#), Scyphers\* M, Paulson J, Mau Y, Matheny AM, Restrepo Acevedo AM. Examining species-specific hydraulic traits using ET measurements and the hydrodynamic canopy transpiration model FETCH3.14. Poster, 10/2023. *Ameriflux Annual Meeting*, Harvard Forest, MA.

24. Onyango\* Y, Bohrer G, Morin T, Villa J, Gabor R, Hasset E, McMurray S, Cianci-Gaskill J, Morris H, Gaffney K, Missik# J. Modeling Interactions of Greenhouse Gases, Dissolved Organic Carbon & Hydrological Regime of the Old Woman Creek Wetland. Poster, 10/2023. *Ameriflux Annual Meeting*, Harvard Forest, MA.
25. Yazbeck\* T, Bohrer G, Scyphers\* M, Missik# J, Ward E, Merino S, Bordelon R, Taj D, Villa J, Wrighton K, Zhu Q, Riley WJ. Reducing uncertainty of wetland-greenhouse gas emissions in earth system models by including eco-hydrological patch types sub-grid representation coupled with Landsat Sentinel-2 derived patch distributions. Oral Presentation, 10/2023. *Ameriflux Annual Meeting 2023*, Harvard Forest, MA (Virtual).
26. Ward E, Bansal S, Bohrer G, Daniel C, Krauss K, Kroeger K, Reed S, Sleeter B, Stagg C, Windham-Myers L, Villa J, Zhu Z. Challenges and opportunities for monitoring and modeling ecosystem management as a nature-based climate solution along a dryland to wetland spectrum. Oral presentation, 8/2023. *Ecological Society of America Annual Meeting*, Portland, OR.
27. Bohrer G, Missik# JEC, Scyphers\* M. Hydrodynamic compatible scaling of flows through the soil-root-stem-leaf atmosphere continuum to predict water fluxes in mixed forests from tree to whole-canopy scales. Oral Presentation, 8/2023. *USNCCM17*, Albuquerque, NM
28. Knight R, Herkins M, Zhao L, Yazbeck\* T, Missik# J, Bohrer G. Validating AERMOD simulations of ammonia dispersion from a commercial poultry production facility. Poster 7/2023. *ASABE Conference*, Omaha, NE.
29. Yazbeck\* T, Bohrner G, Scyphers\* M., Missik# M., Onyango\* Y, Ward E, Bordelon R, Taj D, Villa J, Wrighton K, Zhu Q, Riley W. Improving wetland model realism: activating and evaluating sub-grid level wetland land-unit in the E3SM land model (ELM). Oral Presentation, 6/2023. *Society of Wetland Scientists Annual Meeting*, Spokane, WA.
30. Kujawa\* H, Kalcic M, Bohrer G, Scyphers\* M, Missik# J. The use of SWAT+ for applied watershed-estuary management under climatic and agricultural stressors. Poster, 6/2023. *International SWAT Conference & Workshops*, Aarhus, Denmark.
31. Davidson# SC, Kölzsch A, Missik# J, Chatterjee N, Lohr A, Bohrer G. Open tools for collaborative wildlife management and conservation. Oral Presentation 6/2023. *International Conference on Ecology & Transportation (ICOET23)*, Burlington, VT (best student presentation award).
32. Kölzsch A, Safi K, Davidson# SC, Chatterjee N, Kays R, Bohrer G, Wikelski M. The MoveApps tracking analysis platform and use cases in science, management and conservation. Poster 5/2023. *Gordon Research Conference: Movement Ecology of Animals*, Lucca, Italy.
33. Bohrer G, Davidson# SC, Kölzsch A, Missik# J, Chatterjee N, Lohr A, Fieberg J, Kays R. Ecological forecasting tools for movement-track management at the Yukon-to-Yellowstone migration corridor. Poster 5/2023. *Gordon Research Conference: Movement Ecology of Animals*, Lucca, Italy.
34. Bohrer G, Yazbeck\* T, Scyphers\* M, Missik# J, Paulson J, Onyango\* Y, Riley WJ, Zhu Q, Villa J, Bordelon R, Taj D, Bechtold E, Shcheglov# O, Ward E, Wrighton K. Functional-type modeling approach and data-driven parameterization of methane emissions in wetlands. Poster 5/2023. *Department of Energy, 2023 ESS PI Meeting*, Bethesda, MD.
35. Bohrer G, Davidson# SC, Kölzsch A, Missik# J, Chatterjee N, Lohr A, Fieberg J, Kays R. Ecological forecasting tools for movement-track management at the Yukon-to-Yellowstone migration corridor. Poster 5/2023. *NASA Biodiversity and Ecological Conservation Team Meeting*, College Park, MD.
36. Bohrer G, Davidson# SC, Kölzsch A, Missik# J, Chatterjee N, Lohr A, Fieberg J, Kays R. Project Talk: Ecological forecasting tools for animal movement management at the Yukon-to-Yellowstone migration corridor. Oral Presentation 5/2023. *NASA Biodiversity and Ecological Conservation Team Meeting*, College Park, MD.
37. Davidson# SC, Kölzsch A, Missik# J, Chatterjee N, Lohr A, Fieberg J, Kays R, Bohrer G, Shared tools to analyze animal movement data with contextual environmental information. Poster 5/2023. *NASA Biodiversity and Ecological Conservation Team Meeting*, College Park, MD.
38. Missik# J, Bohrer G, Scyphers\* M, Paulson J, Mau Y, Matheny AM, Restrepo Acevedo AM. Influence of species-specific hydraulic traits on stress response: insights from the hydrodynamic canopy transpiration model FETCH3.14. Poster, 5/2023. *American Meteorological Society 35th Conference on Agricultural and Forest Meteorology/Sixth Conference on Atmospheric Biogeosciences*, Minneapolis, MN.
39. Scyphers\* M, Missik# J, Bohrer G, Paulson J. Parametrizing a hydrodynamic transpiration model using Bayesian optimization for anything (BOA), a language-agnostic hyperparameter tuning package. Poster, 5/2023. *American Meteorological Society 35th Conference on Agricultural and Forest Meteorology/Sixth Conference on Atmospheric Biogeosciences*, Minneapolis, MN.
40. Bohrer G, Missik# J, Villa J, Ju\* Y, Kujawa\* H, Onyango\* Y, Yazbeck\* T, Shcheglov# O. Long and short-term effects of changing water elevation on CO<sub>2</sub> and CH<sub>4</sub> fluxes and nutrient sequestration in a temperate lake-coastal wetland. Oral Presentation, 5/2023. *American Meteorological Society 35th Conference on Agricultural and Forest Meteorology/Sixth Conference on Atmospheric Biogeosciences*, Minneapolis, MN.
41. Yazbeck\* T, Bohrer G, Scyphers\* M, Missik# J, Onyango\* Y, Ward E, Bordelon R, Taj D, Villa J, Wrighton K, Zhu Q, Riley W. Improving wetland model realism: Activating and evaluating sub-grid level wetland land-unit in the E3SM Land Model (ELM). Poster, 5/2023. *American Meteorological Society 35th Conference on Agricultural and Forest Meteorology/Sixth Conference on Atmospheric Biogeosciences*, Minneapolis, MN.

42. Mau Y, Rez L, Bohrer G. Heatwave effects on irrigated Mediterranean orchards, Oral Presentation, 5/2023. *American Meteorological Society 35th Conference on Agricultural and Forest Meteorology/Sixth Conference on Atmospheric Biogeosciences*, Minneapolis, MN (Virtual).
43. Scyphers\* M, Missik# J, Bohrer G, Paulson J, Mau Y, Silva M, Matheny A, Restrepo Acevedo AM. Using BOA for multi-objective optimization of the hydrodynamic canopy transpiration model FETCH3.14. Poster, 4/2023. *European Geophysical Union Annual Conference*, Vienna Austria.
44. Missik# J, Bohrer G, Scyphers\* M, Davidson# S, Kays R, Chatterjee N, Kelly A, Lohr L, Kölzsch A, Wikelski M, Fieberg J. A new set of tools to explore, analyze, and communicate animal movements with environmental and anthropogenic context. Oral Presentation, 4/2023. *European Geophysical Union Annual Conference*, Vienna Austria.
45. Roy\* C, Bohrer G, Missik# J, Scyphers\* M, Sonnentag O, Roy A. Modélisation des réponses hydrauliques d'arbres en forêt boréale (Modeling the hydraulic response of boreal forest trees). Poster, 2/2023. *Center of Nordic Studies (CEN) Colloquium*, Rimouski, QC, Canada.
46. Rez L, Bohrер G, Missik J, Mau Y. Impact of heat waves on irrigated fruit trees: monitoring and control. Poster, 1/2023. *iLEAPS-OzFlux Joint Conference*, Auckland, New Zealand.
47. Yazbeck\* T, Bohrer G, Scyphers\* M, Missik# J, Onyango\* Y, Ward E, Bordelon R, Taj D, Villa J, Wrighton K, Zhu Q, Riley W. Improving wetland model realism: Activating and parametrizing sub-grid level wetland land-unit in the E3SM land model (ELM). Poster, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL.
48. Restrepo Acevedo AM, Missik# J, Bohrer G, Matheny A. Using a crown hydrodynamics model (FETCH3) to simulate transpiration rates in anisohydric and isohydric species under water limited conditions. Poster, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL (Virtual).
49. Chatterjee N, Davidson# SC, Bohrer G, Kays R, Fieberg J. Quantifying species-habitat associations using data pooled across studies and collection methods. Poster, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL (Virtual).
50. Scyphers\* M, Missik# J, Yazbeck\* T, Bohrer G, Paulson J. Making Bayesian optimization accessible: Using Bayesian Optimization for Anything (BOA) to minimize canopy resistance in an LES model. Poster, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL.
51. Villa J, Bohrer G, Ju\* Y, Kinsman-Costello L, Johnson N. Increasing nitrate loads reduces carbon sequestration, nitrogen, and phosphorus accumulation on a freshwater, estuarine marsh. Poster, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL.
52. Kujawa\* H, Bohrer G, Kalcic M. Enhancing existing environmental management tools to simulate watershed-coastal systems in a single framework. Poster, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL.
53. Ward E, Bansal S, Bohrer G, Daniel C, Krauss K, Sleeter B, Stagg C, Windham-Myers L, Villa G, Zhu Z. Challenges and opportunities for monitoring and modeling wetland management as a nature-based climate solution. Poster, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL.
54. Bohrer G, Villa J, Missik# J, Kinsman-Costello L, Ju\* Y, Onyango\* Y, Yazbeck\* T, Wrighton K, Riley W. Greenhouse gas fluxes and long-term nutrient sequestration in a temperate lake-coastal wetland are determined by long- and short-term hydrological changes and vegetation patch types. Oral Presentation, 12/2022. *American Geophysical Union (AGU) Fall Meeting 2022*. Chicago, IL.
55. Bohrer G, Missik# J, Davidson# S. Collaborative wildlife management and conservation with Movebank. Oral Presentation, 11/2022. *Government of the Northwest Territory (GNWT) ENR Biologists Meeting*, Yellowknife, NT, Canada.
56. Bohrer G. Functional-type modeling approach and data-driven parameterization of methane emissions in wetlands. Oral Presentation, 11/2022. *ESS-DIVE Community Data Workshop* (Virtual).
57. Rez L, Bohrер G, Missik J, Mau Y. Defining a heatwave from a tree's perspective: quantifying the effect of climate-change-driven high VPD on stem water storage. Poster, 9/2022. *EPScon Conference*, Weizmann Institute, Rehovot, Israel
58. Bohrer G, Fieberg J, Kays R, Davidson# SC, Wikelski M, Chatterjee N, Lohr A, Missik# J, Koelzsch A. Ecological forecasting tools for movement-track management at the Yukon-to-Yellowstone migration corridor. Oral Presentation, 9/2022. *NASA Biodiversity and Ecological Forecasting Team Meeting*. College Park, MD.
59. Bohrer G, Missik# JE, Yazbeck\* T, Charlton\*\* N, Onyango\* Y, Kujawa\* H, Villa J, Riley W, Wrighton KC. Lake-level changes, ecological dynamic and carbon budgets at a Lake Erie coastal wetland. Poster, 9/2022. *AmeriFlux PI Meeting: 25 Years of AmeriFlux – Past, Present and Future*, UMBS, MI.
60. Atkins J, Bohrer G, Clay C, Curtis PS, Gough CM, Haber L, Stuart-Haëntjens E, Matheny A, Mathes K, Nave L, Schmidt HP, Vogel CS. A quarter century of UMBS-flux: what have learned from 25 years of data? Poster, 9/2022. *AmeriFlux PI Meeting: 25 Years of AmeriFlux – Past, Present and Future*, UMBS, MI.
61. Missik# JE, Bohrer G, Scyphers M, Paulson J, Silva M, Matheny A, Restrepo AM. Examining species-specific stomatal regulation using flux measurements and a hydrodynamic canopy transpiration model (FETCH3). Poster, 9/2022. *AmeriFlux PI Meeting: 25 Years of AmeriFlux – Past, Present and Future*, UMBS, MI.

62. Yazbeck\* T, Bohrer G, Zhu Q, Riley WJ. Functional-type modeling approach and data-driven parameterization of methane emissions in coastal wetlands. Poster, 9/2022. *AmeriFlux PI Meeting: 25 Years of AmeriFlux – Past, Present and Future*, UMBS, MI.
63. Davidson# SC, Fieberg J, Kays R, Hilty J, Chatterjee N, Kölzsch A, Lohr A, Missik# JEC, Bohrer G. A partnership to support wildlife management and conservation in the Yellowstone-to-Yukon migration corridor. Oral presentation, 8/2022. *Ecological Society of America Annual Meeting*, Montréal, Québec, Canada.
64. Missik# JEC, Bohrer G, Silva M, Matheny AM, Restrepo AM. Influence of species-specific hydraulic traits on stomatal response to water stress: insights from a hydrodynamic canopy transpiration model (FETCH3). Oral presentation, 8/2022. *Ecological Society of America Annual Meeting*, Montréal, Québec, Canada.
65. Bohrer G, Missik# JEC. Hydrodynamic compatible scaling from trees to canopies in mixed forests. Poster, 6/2022, *AGU Frontiers in Hydrology Meeting*, San Juan, PR.
66. Kujawa\* H, Kalcic M, Bohrer G. Using the enhancements of SWAT+ to create models for watershed-estuary management. Oral presentation, 6/2022. *The 22nd annual meeting of the American Ecological Engineering Society*, Baltimore, MD.
67. Lohr A, Davidson# SC, Vinciguerra C, Köelzsch A, Wikelski M, Kays R, Bohrer G. Automated analytical workflows for animal tracking data help targeted conservation management in the Yellowstone-to-Yukon region. Poster, 5/2022. *6th Annual Digital Data in Biodiversity Research Conference (iDigBio) (Virtual)*
68. Villa JA, Ju\* Y, Yazbeck T, Bordelon R, Ferreira D, Taj D, Merino S, Ward E, Riley W, Wrighton K, Bohrer G. Effects of ecohydrological patches on methane emissions and carbon sequestration in coastal wetlands. Oral Presentation, 5/2022. *DoE Environmental System Science (ESS) PI Meeting (Virtual)*.
69. Kinsman-Costello LE, Monty-Bromer C, Prasanna Chinthala S, Adesanmi B, Senko JM, Davis J, Quick T, Morin TH, Kubatko E, Bohrer G, Herndon EM. Rewriting the Redox Paradigm: Dynamic hydrology shapes nutrient and element transformations in a Great Lakes coastal estuary. Oral Presentation, 5/2022. *DoE Environmental System Science (ESS) PI Meeting (Virtual)*.
70. Missik# J, Villa J, Bohrer G, Morin T, Rey-Sanchez C, Ju\* Y, Onyango Y. Impacts of water levels on methane fluxes in a Lake Erie estuarine wetland. Poster, 5/2022. *Joint Aquatic Science Meeting (JASM 2022)*, Grand Rapids, MI.
71. Villa JA, Ju\* Y, Kinsman-Costello L, Bohrer G. How elevation and nutrient runoff affect C sequestration and nutrient accumulation on a freshwater, estuarine wetland. Poster, 5/2022. *Joint Aquatic Science Meeting (JASM 2022)*, Grand Rapids, MI
72. Bohrer G, Ju\* Y. Identifying Wetland Vegetation Patch Types from HLS Remote Sensing. Oral Presentation, 5/2022. *Joint Aquatic Science Meeting (JASM 2022)*, Grand Rapids, MI
73. Bohrer G, Villa JA, Ju\* Y. The role of ecohydrological patch types in carbon sequestration and nutrient uptake rate in a lake estuarine wetland experiencing rapid water-level rise. Poster, 5/2022, *European Geophysical Union General Assembly*, Vienna, Austria. <https://doi.org/10.5194/egusphere-egu22-10078>
74. Bohrer G, Ju\* Y, Yazbeck\* T, Missik# J, Kujawa\* H, Villa J, Wrighton K, Riley W. Methane emissions and carbon sequestration in a Lake Erie estuarine wetland. Oral Presentation, 3/2022. *State of Lake Erie Conference*, Cleveland, OH.
75. Villa JA, Bohrer G, Kinsman-Costello L, Yazbeck\* T, Johnson N, Suto A, Kelsey D. Understanding the role of microtopography and nutrient runoff in P accumulation rates of a freshwater estuarine wetland in Lake Erie. Oral Presentation, 3/2022. *State of Lake Erie Conference*, Cleveland, OH.