**Patty Oikawa**

Department of Earth and Environmental Sciences

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**APPOINTMENTS**

California State University, East Bay

2023- Chair

2022- Associate Professor

2016-2022 Assistant Professor

University of California, Berkeley

2013-2016 Post-Doctoral Researcher, Dept. Environmental Science, Policy, & Management

University of California, Riverside

2011-2013 Post-Doctoral Researcher, Dept. of Botany and Plant Sciences

**EDUCATION**

University of California Santa Barbara Ecology B.S. 2004

University of Virginia Biology Ph.D. 2011

**RESEARCH INTERESTS**

Nature-based climate solutions. Biogeochemistry, mainly carbon and nitrogen cycling. Greenhouse gas and reactive trace gas measurements in managed lands including wetlands and agroecosystems. Land-atmosphere and land-ocean interactions.

**AWARDS AND FELLOWSHIPS**

Rosemary and Matthew Spitzer Distinguished Science Faculty Award, Cal State East Bay, 2024

Provost’s Untenured Outstanding Researcher Award, CSU East Bay, 2019

Innovation Award, American Carbon Registry, 2017

USDA-NIFA Postdoctoral Fellow, UC Berkeley, 2013-2015

NSF-IGERT Biosphere-Atmosphere Research and Training Fellow, Stony Brook, 2006-2008

**GRANTS**

2023-25 UCOP California Climate Action Seed and Matching Award. Title: California Soil Carbon Accrual Project and Workforce Training Program. Lead PI Daley, Co-PIs Oikawa, Knowles, Matiasek, Liles, Smith, Brimlow. (Total: $5.2M; CSUEB: $583k)

2023-26 NASA Earth Science Division, Carbon Monitoring System. Title: An Alkalinity and Inorganic Blue Carbon Monitoring System: Crediting Wetland-to-Ocean Lateral Fluxes in Carbon Markets and Inventories. Lead PI Kroeger, Co-PIs Oikawa, Crooks, Holmquist, Tzortziou, Wang, Ward, Windham-Myers, Zhu. (Total: $1.2M; CSUEB: $165k)

2024-25 CSU COAST. Title: Between extremes: quantifying subsurface tidal wetland biochemical responses to weather events. Lead PI Grande, Co-PI Oikawa. (25k)

2021-24 U.S. Department of Energy, Environmental System Science Program. Title: High-frequency data integration for landscape model calibration of carbon fluxes across diverse tidal wetlands. Lead PI Oikawa, Co-PIs Gough, Knox, Vargas, Windham-Myers, Schäfer. (Total: $1M; CSUEB: $279k)

2019-21 CSU COAST. Title: Constraining Carbon Budgets and Sedimentation Rates in Coastal Wetlands. Lead PI: Carlin, Co-PI Oikawa. ($20k)

2019-22 NASA Earth Science Division, Carbon Monitoring System. Title: Data-model Integration for Monitoring and Forecasting Coastal Wetland Carbon Exchanges: Serving Local to National Greenhouse Gas Inventories. Lead PI Holmquist, co-PIs Oikawa, Crooks, McLachlan, Megonigal, Roberts, Schile-Beers, Windham-Myers, Castruccio, Noyce. (Total: $1.5M; CSUEB: $82k)

2019-21 Delta Stewardship Council Research Award. Title: Quantifying carbon benefits of tidal wetlandrestoration in the Delta: Decision support using a robust, integrated and data-driven model. Lead PI Oikawa, Co-PIs Knox, Windham-Myers, Dronova, Bergamaschi, Anderson. (Total: $982k; CSUEB: $242k)

2019-21 California Strategic Growth Council, Climate Change Research Program. Title: Working Lands Innovation Center- Catalyzing Negative Carbon Emissions. Lead PI Houlton, Co-PI Oikawa, Silver, Jones, Torn, Pathak, Montañez. (Total: $4,7M; CSUEB: $299k)

2018-19 CSU East Bay College of Science, Collaborative Research Award. Title: Carbon Sequestration in Coastal Tidal Wetlands. ($3k)

2017-18 California State University Chancellor’s Office, Campus as a Living Lab Grant. Title: Offsetting CSU East Bay’s Greenhouse Gas Emissions with Reforestation on Concord Campus. Lead PI Oikawa. ($68k)

**SERVICE**

**Committees, Conferences and Management**

* Wetlands Offset Working Group (WOW), 2024-present
* **N**etwork of north **A**merican **T**idal wetlands: **U**nderstanding through coordinated **R**esearch **A**ctivities (NATURA), lead 2021-present
* Coastal Carbon Network (CCN) Methane Working Group, lead 2019-2024
* Coastal Carbon Network (CCN) Steering Committee Member, 2019-present
* Natural Climate Solutions Working Group, Ameriflux, 2022-present
* Organizing committee for Ameriflux annual meeting, 2023
* CarbonDew member, 2022-present
* AGU Thriving Earth Exchange, Climate Change Mitigation Potential of Coastal Wetlands, Scientific lead 2017-19

**California State University East Bay**

* Department Chair, 2023-present
* Campus Sustainability Committee, 2017-22
* Climate Action Plan Implementation Taskforce (CAP IT), 2018-19, 2021-22
* EES Faculty Search Committee: Surficial Processes 2016-17, Quantitative Geosciences 2019-20, Environmental Geoscientist 2021-22

**Reviewer Work**

* Review panels: Dept. of Energy, USDA, NSF
* Journal reviews: JGR Biogeosciences, Global Change Biology, Ecology, Ecosystems, Agricultural & Forest Meteorology, Plant & Soil, Wetlands, Science of the Total Environment

**TEACHING AND MENTORING**

**Student Awards**

Delta Science Graduate Student Fellowship: Shahan 2020, Matsumura 2022

Lawrence Berkeley National Lab-CSU East Bay graduate student internship: Bahramian 2018, Fenster 2019, Shahan 2021

CSU COAST Dr. Kenneth H. Coale Graduate Scholar Award: Shahan 2020, Silberman 2023

**California State University, East Bay**

Courses: Nature-Based Climate Solutions and Geoengineering, Carbon Markets and Ecological Restoration, Biogeochemistry, Atmospheric Science, Weather and the Atmosphere, Environmental Problems of California

Student Survey of Learning Experience across all courses taught to date:

Overall Average = 3.6 out of 4.0 (SD=0.2; n=26)

Mentoring: 13 M.S. and 23 undergraduate students, 2016-2024

**University of California, Berkeley**

Courses:Women in Science and Engineering Theme Program (WiSE) seminar

Mentoring: M.S. student from ENSTA ParisTech and 2 undergraduate students in the Biology Scholars Program, a program designed to support underrepresented minorities in the sciences, 2014-2015

**University of California Riverside**

Mentoring: supervised 10 undergraduate research projects conducted at the University of California Desert Research and Extension Center; 2 students received Chancellor’s Research Fellowships

**PUBLICATIONS** **\*mentored students;** [**Google Scholar page**](https://scholar.google.com/citations?hl=en&user=xiSdkTEAAAAJ&view_op=list_works&authuser=1&gmla=ALUCkoXcv8sL38E8ibuMpsB7wzEaTvGyEUutX5_A0bTZZVByYPvB0RaL8N1vYN0DncEiU7AwEEfhzJlNPaqZeugp)

# Delwiche, K.,…Oikawa, P.Y.,…Baldocchi, D.D. (2025) Dynamic methane emissions in a restored wetland: Decadal insights into uncertain climate outcomes and critical science needs. Agricultural and Forest Meteorology. [https://doi.org/10.1016/j.agrformet.2025.110735](https://doi.org/10.1016/j.agrformet.2025.110735" \o "Persistent link using digital object identifier" \t "_blank)

1. Reed, D.E. Chu, H….Oikawa, P.Y….Zona, D. (2025) Network of networks: Time series clustering of Ameriflux sites. Agricultural and Forest Meteorology. <https://doi.org/10.1016/j.agrformet.2025.110686>
2. **Oikawa P.Y.**, D. Sihi, I. Forbrich, E. Fluet-Chouinard, M. Najarro, \*O. Thomas, \*J. Shahan , A. Arias-Ortiz, S. Russell, S.H. Knox, G. McNicol, J. Wolfe, L. Windham-Myers, E. Stuart-Haentjens, S.D. Bridgham, B. Needelman, R. Vargas, K. Schäfer, E.J. Ward, P. Megonigal, and J. Holmquist (2024) A New Coupled Biogeochemical Modeling Approach Provides Accurate Predictions of Methane and Carbon Dioxide Fluxes Across Diverse Tidal Wetlands. *Journal of Geophysical Research: Biogeosciences*, *129(10), p.e2023JG007943*.
3. Koontz, E.L., S.M. Parker, A.E. Stearns, B.J. Roberts, C.M. Young, L. Windham-Myers, **P.Y. Oikawa**,…J.R. Holmquist (2024) Controls on spatial variation in porewater methane concentrations across United States tidal wetlands. *Science of the Total Environment. Accepted.*
4. Arias‐Ortiz, A., Wolfe, J., Bridgham, S.D., Knox, S., McNicol, G., Needelman, B.A., \*Shahan, J., Stuart‐Haëntjens, E.J., Windham‐Myers, L., **Oikawa, P.Y.**, Baldocchi, D.D….Holmquist J.R. (2024) Methane fluxes in tidal marshes of the conterminous United States. *Global Change Biology*, *30*(9), p.e17462.
5. Richardson, J.L., Desai, A.R., Thom, J…**Oikawa P.Y.**, \*J. Shahan, M. Matsumura (2024) On the Relationship Between Aquatic CO2 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>
6. \*Fenster, T.L., Torres, I., Zeilinger, A., Chu, H. and **Oikawa, P.** (2023) Compost amendment to a grazed California annual grassland increases gross primary productivity due to a longer growing season. *Journal of Geophysical Research: Biogeosciences*, *128*(12), p.e2023JG007621.
7. Bansal, S., Creed, I.F., Tangen, B.A., … **Oikawa, P.,** …. and Zhu, X. (2023) Practical guide to measuring wetland carbon pools and fluxes*. Wetlands (Mark Brinson Review)* 43:105 <https://doi.org/10.1007/s13157-023-01722-2>
8. Windham–Myers, L., **Oikawa, P.**, Deverel, S., Chapple, D., Drexler, J.Z. and Stern, D., (2023) Carbon Sequestration and Subsidence Reversal in the Sacramento–San Joaquin Delta and Suisun Bay: Management Opportunities for Climate Mitigation and Adaptation. *San Francisco Estuary and Watershed Science*, *20*(4).
9. Russell, S.J., Windham-Myers, L., Stuart-Haëntjens, E.J., Bergamaschi, B.A., Anderson, F., **Oikawa, P.** and Knox, S.H. (2023) Increased salinity decreases annual gross primary productivity at a Northern California brackish tidal marsh. *Environmental Research Letters*, *18*(3), p.034045.
10. \*Shahan, J., Chu, H., Windham‐Myers, L., Matsumura, M., Carlin, J., Eichelmann, E., Stuart‐Haentjens, E., Bergamaschi, B., Nakatsuka, K., Sturtevant, C. and **Oikawa, P.Y.** (2022) Combining eddy covariance and chamber methods to better constrain CO2 and CH4 fluxes across a heterogeneous restored tidal wetland. *Journal of Geophysical Research: Biogeosciences*, *127*(9), p.e2022JG007112.
11. Andrews, H.M., Homyak, P.M., **Oikawa, P.Y.**, Wang, J. and Jenerette, G.D. (2022) Water-conscious management strategies reduce per-yield irrigation and soil emissions of CO2, N2O, and NO in high-temperature forage cropping systems. *Agriculture, Ecosystems & Environment*, *332*, p.107944.
12. Arias‐Ortiz, A., **Oikawa, P.Y.**, Carlin, J., Masqué, P., \*Shahan, J., Kanneg, S., Paytan, A. and Baldocchi, D.D. (2021) Tidal and nontidal marsh restoration: A trade‐off between carbon sequestration, methane emissions, and soil accretion. *Journal of Geophysical Research: Biogeosciences*, *126*(12), p.e2021JG006573.
13. Miller, G.J., Dronova, I., **Oikawa, P.Y.**, Knox, S.H., Windham-Myers, L., \*Shahan, J. and Stuart-Haëntjens, E. (2021) The potential of satellite remote sensing time series to uncover wetland phenology under unique challenges of tidal setting. *Remote Sensing*, *13*(18), p.3589.
14. Eichelmann, E., Mantoani, M.C., Chamberlain, S.D., Hemes, K.S., **Oikawa, P.Y**., Szutu, D., Valach, A., Verfaillie, J. and Baldocchi, D.D. (2022) A novel approach to partitioning evapotranspiration into evaporation and transpiration in flooded ecosystems. *Global change biology*, *28*(3), pp.990-1007.
15. Novick, K.A., S. Metzger, WRL Anderegg, M. Barnes, D.S. Cala, K. Guan, K.S. Hemes, D.Y. Hollinger, J. Kumar, M. Litvak, D. Lombardozzi, C.P. Normile, **P.Y. Oikawa**, B.R.K. Runkle, M. Torn, S. Wiesner (2022) Informing Nature‐based Climate Solutions for the United States with the best‐available science. *Global change biology*, *28*(12), pp.3778-3794.
16. Fenster, T.L., **Oikawa, P.Y.** and Lundgren, J.G. (2021) Regenerative almond production systems improve soil health, biodiversity, and profit. *Frontiers in Sustainable Food Systems*, *5*, p.664359.
17. Irvin, J., Zhou, S., McNicol, G., Lu, F., Liu, V., Fluet-Chouinard, E., Ouyang, Z., Knox... **Oikawa, P.Y**….Jackson, R.B. (2021) Gap-filling eddy covariance methane fluxes: Comparison of machine learning model predictions and uncertainties at FLUXNET-CH4 wetlands. *Agricultural and Forest Meteorology*, *308*, p.108528.
18. Wang, Y., C. Ge, L. Castro Garcia, D. Jenerette, **P. Oikawa**, J. Wang (2021) Improved modeling of soil NOx emissions in a high temperature agricultural region: role of background emissions on NO2 trend over the US. Environmental Research Letters, 16(8), p.084061.
19. Chu, H., X. Luo, Z. Ouyang,… **P.Y. Oikawa**, … D. Zona (2021) Representativeness of Eddy-Covariance Flux Footprints for Areas Surrounding Ameriflux Sites. *Agricultural and Forest Meteorology* 301 p.108350. <https://doi.org/10.1016/j.agrformet.2021.108350>
20. Delwiche, K.B., Knox S.H.,…**P.Y. Oikawa**…R.B. Jackson (2021) FLUXNET-CH4: A global, multi-ecosystem dataset and analysis of methane seasonality from freshwater wetlands *Earth System Science Data Discussions* (2021): 1-111.
21. Dronova, I., S. Taddeo, K. Hemes, S.H. Knox, A. Valach, **P.Y. Oikawa**, K. Kasak, D.D. Baldocchi (2021) Remotely sensed phenological heterogeneity of restored wetlands: linking vegetation structure and function. *Agricultural and Forest Meteorology* 296 (2021): 108215
22. Fertitta-Roberts, C., **Oikawa, P.Y.**, Jenerette G.D. (2019) Evaluating the GHG mitigation-potential of alternate wetting and drying in rice through life cycle assessment. *Science of the Total Environment*. **653**:1343-1353.
23. Hemes, K., Eichelmann, E., Chamberlain S.D., Knox S.H., **Oikawa, P.Y.**, Sturtevant C., Verfaillie J., Baldocchi D.D. (2018) A unique combination of aerodynamic and surface properties contribute to surface cooling in restored wetlands of the Sacramento-San Joaquin Delta, California. *Journal of Geophysical Research Biogeosciences,* DOI: 10.1029/2018JG004494
24. Chamberlain, S.D., T. Anthony, W. Silver, Eichelmann, E., K. Hemes, **P.Y. Oikawa**, C. Sturtevant, D. Szutu, J. Verfaillie, D.D. Baldocchi (2018) Soil properties and sediment accretion modulate methane fluxes from restored wetlands. *Global Change Biology,* DOI: 10.1111/gcb.14124
25. Eichelmann, E., K. Hemes, S.H. Knox, **P.Y. Oikawa,** S.D. Chamberlain, C. Sturtevant, J. Verfaillie, D.D. Baldocchi (2018) The effect of land cover type and structure on evapotranspiration from agricultural and wetland sites in the Sacramento–San Joaquin River Delta, California. *Agricultural and Forest Meteorology,* **256**:179-195.
26. **Oikawa, P.Y.**, G.D. Jenerette, S.H. Knox, C. Sturtevant, J. Verfaillie, I. Dronova, C.M. Poindexter, Eichelmann, E., D.D. Baldocchi (2017) Evaluation of a hierarchy of models reveals importance of substrate limitation for predicting carbon dioxide and methane exchange in restored wetlands. *Journal of Geophysical Research, Biogeosciences*, *doi:* 10.1002/2016JG003438*.*
27. **Oikawa, P.Y.,** C. Sturtevant, S.H. Knox, J. Verfaillie, Y.W. Huang, D.D. Baldocchi. (2017) Revisiting the partitioning of net ecosystem exchange of CO2 into photosynthesis and respiration with simultaneous flux measurement of 13CO2 and CO2, soil respiration and a biophysical model, CANVEG. *Agricultural and Forest Meteorology*, **234**:149-163.
28. Jardine K.J.,Fernandes de Souza V., **Oikawa, P.Y.**, Higuchi N., Bill M., Porras R., Niinemets U., Chambers J. (2017) Integration of C1 and C2 metabolism in trees. *International J. of Molecular Sciences*, *doi:*10.3390/ijms18102045.
29. Knox, S.H., I. Dronova, C. Sturtevant, **Oikawa, P.Y.,** Matthes, J., J. Verfaillie, D.D. Baldocchi (2017) Using digital camera and Landsat imagery with eddy covariance data to model gross primary production in restored wetlands. *Agricultural and Forest Meteorology* **237**: 233-245.
30. Baldocchi, D.D., S.H. Knox, I. Dronova, J. Verfaillie, **P.Y. Oikawa**, C. Sturtevant, J. Hatala-Mathes, M. Detto (2016) The impact of expanding flooded land area on the annual evaporation of rice. *Agricultural and Forest Meteorology,* **223**:181-193.
31. Knox, S.H., J. Hatala-Mathes, C. Sturtevant, **P.Y. Oikawa**, J. Verfaillie, D.D. Baldocchi (2016) Biophysical controls on the interannual variability in ecosystem-scale in CO2 and CH4 exchange in a California rice paddy. *Journal of Geophysical Research: Biogeosciences, doi:* 10.1002/2015JG003247*.*
32. **Oikawa, P.Y.**, C. Ge, J. Wang, J.E. Eberwein, L. Liang, L.A. Allsman, D.A. Grantz, G.D. Jenerette (2015) Unusually high soil nitrogen oxide emissions influence air quality in high temperature agricultural region. *Nature Communications,* https://doi.org/10.1038/ncomms9753*.*
33. Sturtevant, C., B.L. Ruddell, S.H. Knox, J. Verfaillie, J. Hatala, **P.Y. Oikawa**, D.D. Baldocchi (2015) Identifying scale-emergent, nonlinear, asynchronous processes of wetland methane exchange. *Journal of Geophysical Research: Biogeosciences,* 121(1), pp.188-204.
34. Eberwein, J.R., **Oikawa, P.Y.**, Allsman, L.A. and Jenerette, G.D. (2015) Carbon availability regulates soil respiration response to nitrogen and temperature. *Soil Biology and Biochemistry*, 88, pp.158-164.
35. Eberwein, J.E., **P.Y. Oikawa**, L.A. Allsman, G.D. Jenerette (2014) The effects of C, N and temperature interactions on soil respiration quantified through Michaelis-Menten kinetics. *Journal of Soil Biology and Biochemistry*. <https://doi.org/10.1016/j.soilbio.2015.05.014>
36. **Oikawa, P.Y.**, G.D. Jenerette, D.A. Grantz (2014) Offsetting high water demands with high productivity: Sorghum as a biofuel crop in a high irradiance arid ecosystem. *Global Change Biology Bioenergy*, doi:10.1111/gcbb.12190.
37. **Oikawa, P.Y.**, D.A. Grantz, A. Chatterjee, J.E. Eberwein, L.A. Allsman, G.D. Jenerette (2014) Unifying soil respiration pulses, inhibition, and temperature hysteresis through dynamics of labile carbon and soil O2. *Journal of Geophysical Research: Biogeosciences*, <https://doi.org/10.1002/2013JG002434>
38. **Oikawa, P.Y.**, M.T. Lerdau (2013) Catabolism of phytogenic volatile organic compounds. *Trends in Plant Science*, 18:695-703.
39. **Oikawa, P.Y.**, B.M. Giebel, L. da S.L. Sternberg, L. Li, M.P. Timko, P.K. Swart, D.D. Riemer, J.E. Mak, M.T. Lerdau (2011) Leaf and root pectin methylesterase activity and 13C/12C stable isotopic ratio measurements of methanol emissions give insight into methanol production in *Lycopersicon esculentum*. *New Phytologist*, 191:1031-1040.
40. **Oikawa, P.Y.**, L. Li, M.P. Timko, J.E. Mak, M.T. Lerdau (2011) Short term changes in methanol emission and pectin methylesterase activity are not directly affected by light in *Lycopersicon esculentum*. *Biogeosciences*, 8:1023-1030.

**NON-REFEREED PUBLICATIONS**

1.Deverel, S.J., **P.Y. Oikawa**, S. Mack, L. Silva (2016) Wetland Implementation and Rice Cultivation in the Sacramento-San Joaquin Delta, San Francisco Estuary and the Coast of California – Methodology for Quantifying Greenhouse Gas Emissions Reductions, Version 1.0, approved, *American Carbon Registry*

**PUBLIC ENGAGEMENT AND COMMUNITY OUTREACH**

**Oikawa, P.Y.** Panelist for *Sierra Club* Webinar on Sea Level Rise: Why We Need Nature-Based Adaptation. “Carbon Sequestration and Greenhouse Gas Budgets in Restored Tidal Wetlands” (2021)

Interviewed for CSU article on “The Race Against the Climate Crisis”, highlighting research in the Oikawa lab at CSU East Bay (2021)

<https://www2.calstate.edu/csu-system/news/Pages/race-against-climate-crisis.aspx>

**Oikawa, P.Y.** *California Council on Science and Technology (CCST)* Expert Briefing Panelist on Natural Pathways for Carbon Sequestration in California (2020)

**Oikawa, P.Y.** “Fighting Climate Change Using Natural Ecosystems”. *California State University, East Bay Nature Weekend*. (2020)

**Oikawa, P.Y.**, \*J. Bahramian, H. Chu, S. Biraud, S.H. Knox, I. Dronova, F. Anderson, B. Bergamaschi, L. Windham-Myers, K. Hemes, E. Eichelmann, J. Verfaillie, D.J. Szutu, A. Valach, D.D. Baldocchi. “Measuring and modeling greenhouse gases from restored wetlands in the San Francisco Bay Area”. *State Coastal Conservancy Office*, Oakland CA, South Bay Salt Pond Project Management Team Meeting (2018)

Deverel, S., **P.Y. Oikawa.** “Methodology for quantifying greenhouse gas emissions reductions: Wetland implementation and rice cultivation in the Sacramento-San Joaquin Delta”. San Francisco Estuary and the California Coast, *American Carbon Registry Webinar* (2016)

**SELECTED PRESENTATIONS**

**Oikawa, P.Y.**, J. Silberman, M. Matsumura, CM Gough, L. Haber, S. Tenda, S.C. Neubauer, K. Schafer, S. Dhakal, S.H. Knox, K. Poppe, S. Russell, R. Vargas, L Windham-Myers, E.J. Stuart-Haëntjens (2023) Constraining CO2 and CH4 fluxes from Diverse Tidal Wetlands: Measurements and modeling across a network of eddy covariance sites in North America and Canada. *American Geophysical Union*. San Francisco, CA (oral presentation)

**Oikawa, P.Y.**, M. Matsumura, J. Shahan, J. Silberman, CM Gough, L. Haber, S. Tenda, S.C. Neubauer, K. Schafer, S. Dhakal, S.H. Knox, K. Poppe, S. Russell, R. Vargas, L Windham-Myers, E.J. Stuart-Haëntjens (2022) Constraining CO2 and CH4 fluxes from Diverse Tidal Wetlands: Standardizing measurements and analysis across a network of eddy covariance sites in North America and Canada. *American Geophysical Union*. Washington, DC (oral presentation)

**Oikawa, P.Y.**, M. Matsumura, J. Shahan, J. Silberman, CM Gough, L. Haber, S. Tenda, S.C. Neubauer, K. Schafer, S. Dhakal, S.H. Knox, K. Poppe, S. Russell, R. Vargas, L Windham-Myers, E.J. Stuart-Haëntjens (2022) Constraining CO2 and CH4 fluxes from Diverse Tidal Wetlands: Standardizing measurements and analysis across a network of eddy covariance sites in North America and Canada. *Ameriflux Fall Meeting*. Michigan (oral presentation)

**Oikawa, P.Y.**, J. Shahan, M. Matsumura, E. Stuart-Haentjens, A. Arias-Ortiz, D. Baldocchi, I. Dronova, G. Miller, S. Knox, S. Russell, B. Bergamaschi, K. Nakatsuka, J. Carlin, A. Paytan, E. Koontz, J. Holmquist, L. Windham-Myers (2022) Combining Atmospheric and Lateral Carbon Fluxes in Restored and Historic Tidal Wetlands in the San Francisco Bay Delta. *Ocean Carbon and Biogeochemistry Summer Workshop*. Woods Hole, MA (invited oral presentation)

**Oikawa, P.Y.**, M. Matsumura, J. Shahan, J. Silberman, C. Gough, L. Haber, S. Tenda, K. Schäfer, S. Dhakal, S. Knox, K. Poppe, S. Russell, R. Vargas, A. Hill, L. Windham-Myers, E. Stuart-Haëntjens (2022) Finding the Blind Spots: Evaluating Nature-Based Climate Solutions with Ecosystem-Scale Measurements. *Max Planck Institute for Biogeochemistry*, Jena, Germany (invited oral presentation)

**Oikawa, P.Y.**, J. Shahan, M. Matsumura, E. Stuart-Haëntjens, I. Dronova, G. Miller, S. Knox, S. Russell, B. Bergamaschi, K. Nakatsuka, J. Carlin and L. Windham-Myers (2022) Combining Atmospheric and Lateral Carbon Fluxes in a Restored Tidal Wetland in the San Francisco Bay. *AGU Ocean Sciences Meeting*. Honolulu, HI. (oral presentation).

**Oikawa, P.Y.**, D. Sihi, I. Forbrich, M. Najarro, E. Fluet-Chouinard, S. Russell, S. Knox, O. Thomas, A. Arias-Ortiz, P. Megonigal and J. R. Holmquist (2021)Improving Methane Budgets from Tidal Wetlands with Coupled Biogeochemical Models MEM-PEPRMT. *American Geophysical Union*. New Orleans, DC (oral presentation)

**Oikawa, P.Y.**, J. Holmquist, P. Megonigal, S. Russell, S.H. Knox, M. Najarro, L. Windham-Myers, E. Stuart-Haëntjens, G. McNicol, B. Needelman, D. Sihi, I. Forbrich, J. Tang, S. Bridgham, M. Lonneman, J. Wolfe, E. Fluet-Chouinard, A. Arias-Ortiz (2020) United States Methane Budget from Tidal Wetlands: Developing an Open Source Database of Methane Measurements and Process-based Models. *American Geophysical Union*. San Francisco, CA (poster presentation)

**Oikawa, P.Y.**, J. Bahramian, H. Chu, S. Biraud, J. Carlin, S.H. Knox, I. Dronova, F. Anderson, B. Bergamaschi, L. Windham-Myers, K. Hemes, E. Eichelmann, J. Verfaillie, D.J. Szutu, A. Valach, D.D. Baldocchi. “Measuring and modeling greenhouse gas exchange from restored freshwater and tidal wetlands in the San Francisco Bay Delta” (2019) *Estuary and Ocean Science Center Seminar,* San Francisco State University, Tiburon, CA, (invited oral presentation)

**Oikawa, P.Y.,** J. Bahramian, J.A. Carlin, H. Chu, I. Dronova, S.H. Knox, M. Bogard, F.E. Anderson, B.A. Bergamaschi, L. Windham-Myers, K.S. Hemes, E. Eichelman, J.G. Verfaillie, D.J. Szutu, A.C. Valach, D.D. Baldocchi (2019) Measuring and Modeling Ecosystem Carbon Budgets and Greenhouse Gas Exchange from Restored Marshes across a Salinity Gradient. *American Geophysical Union*. San Francisco, CA (poster presentation)

**Oikawa, P.Y.**, J. Bahramian, H. Chu, S. Biraud, S.H. Knox, I. Dronova, F. Anderson, B. Bergamaschi, L. Windham-Myers, K. Hemes, E. Eichelmann, J. Verfaillie, D.J. Szutu, A. Valach, D.D. Baldocchi. (2018) “Measuring and modeling greenhouse gas exchange from restored freshwater and tidal wetlands in the San Francisco Bay-Delta” *Lawrence Berkeley National Lab* *Climate Brownbag Seminar* (invited oral presentation)

**Oikawa, P.Y.** “Measuring and Modeling Greenhouse Gas Exchange in Restored Wetlands” (2018) *UC Merced* *Enviro-lunch seminar* (invited oral presentation)

**Oikawa, P.Y.**, K. Hemes, E. Eichelman, S. Chamberlain, S.H. Knox, I. Dronova, J. Verfaillie, D.D. Baldocchi (2018) Improving partitioning of ecosystem exchange of CO2 using stable carbon isotopes. *European Geophysical Union*. Vienna, Austria (poster presentation)

**ADDITIONAL TRAINING**

CSUEB Course on Developing Equitable Grading Practices, 2024

CSU COAST Implicit Bias Workshop, January 2021

CSUEB Online Campus Workshop titled “Free Collaborative/Group Learning Tools to Engage Your Learners”, July 2020

Association of College and University Educators (ACUE) online course in high impact teaching practices, Fall 2016

Autumn School on Data Assimilation in Biogeochemical Cycles, International Space Science Institute, Italy, 2014

4th Annual summer course in flux measurements and advanced modeling, University of Colorado Mountain Research Station, Boulder, Colorado, 2011

**TECHNICAL SKILLS**

*Statistical Analysis and Programming*

Data assimilation techniques, Bayesian statistics, Markov chain-Monte Carlo analyses, multivariate statistics, Artificial neural networks, Random Forest modeling

Programming in Matlab and R

*Analytical Chemistry*

Proton transfer reaction-mass spectrometry (PTR-MS), Gas chromatography (GC), flame ionization detector (FID), mass spectrometry (MS), Isotope-ratio mass spectrometry (IRMS), Automated discrete analyzer (Seal AQ2), Cavity ring-down spectroscopy (Picarro G2308), Nitrogen oxide and O3 monitors (2B Technologies)

*Leaf and soil-scale measurements*

Portable foliar gas exchange system (LI-6400), Soil surface flux measurements (LI-8100, gradient techniques, forced diffusion chambers), Leaf water potential (PMS pressure chamber)

*Micrometeorology*

Eddy covariance: open path (LI-7500 CO2, LI-7700 CH4) and closed path analyzers (LI-7200 CO2, LGR N2O and CH4 analyzers via Off-axis Integrated Cavity Output Spectroscopy)