Stanford



Clarice Perryman

Physical Science Research Scientist, Earth System Science

Curriculum Vitae available Online

Bio

ACADEMIC APPOINTMENTS

- Physical Science Research Scientist, Earth System Science

HONORS AND AWARDS

- NSF Earth Sciences Postdoctoral Fellowship, National Science Foundation (2024-2025)

LINKS

- Research Website: https://clariceperryman.com/

Publications

PUBLICATIONS

- **Methane emissions from canals draining tropical peatlands: Constraining temporal variability and emissions pathways** *LIMNOLOGY AND OCEANOGRAPHY LETTERS*

  Perryman, C. R., Bowen, J. C., Barry, D., Dayanti, E., Andriyani, Y., Gates, R. L., Novita, N., Anshari, G. Z., Hoyt, A. M.

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- **A global methane observation system to track climate feedbacks for verifiable climate impact.** *Science (New York, N.Y.)*

  Watts, J. D., Ordway, E., Malone, S. L., Zhu, Q., Palmer, P. I., Patel-Tupper, D., Ciais, P., Li, F., Monteverde, D. R., Arndt, K. A., Bruhwiler, L., Buma, B., Cadillo-Quiroz, et al

  2026; 391 (6792): 1324-1327

- **Insights Into the Persistence and Vulnerability of Tropical Peat Carbon Stocks From a Long-Term Field Decomposition Experiment** *GLOBAL BIOGEOCHEMICAL CYCLES*

  Perryman, C. R., Baysinger, M. R., Cobb, A. R., Gandois, L., Chanton, J. P., Evans, T., Chua, A., Eri, J., Bohari Bin Haji Idi, H., Incham, J., Pu, J. P., Teo, A., Zulkiflee, et al

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- **The PeatPic project: predicting plot-scale green leaf phenology across peatlands** *ENVIRONMENTAL RESEARCH LETTERS*

  Davidson, S. J., Malhotra, A., Jassey, V. E. J., Strack, M., Aitova, E., Anderson, R., Atkinson, L. J., Barel, J. M., Bird, M., Brehier, C., Donaldson-Selby, G., Duley, E., Eklof, et al

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- **Fate of methane in canals draining tropical peatlands.** *Nature communications*

  Perryman, C. R., Bowen, J. C., Shahan, J., Silviani P A B, D., Dayanti, E., Andriyani, Y., Asyhari, A., Gangga, A., Novita, N., Anshari, G. Z., Hoyt, A. M.

  2024; 15 (1): 9766

- **Strong climate mitigation potential of rewetting oil palm plantations on tropical peatlands.** *The Science of the total environment*

  Novita, N., Asyhari, A., Ritonga, R. P., Gangga, A., Anshari, G. Z., Jupesta, J., Bowen, J. C., Lestari, N. S., Kauffman, J. B., Hoyt, A. M., Perryman, C. R., Albar, I., Putra, et al

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- **Controls on Stable Methane Isotope Values in Northern Peatlands and Potential Shifts in Values Under Permafrost Thaw Scenarios** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
  Kuhn, M. A., Varner, R. K., McCalley, C. K., Perryman, C. R., Aurela, M., Burke, S. A., Chanton, J. P., Crill, P. M., DelGreco, J., Deng, J., Heffernan, L., Herrick, C., Hodgkins, et al
  2024; 129 (7)

- **Quantifying the fluxes of carbon loss from an undrained tropical peatland ecosystem in Indonesia.** *Scientific reports*
  Asyhari, A., Gangga, A., Putra, C. A., Ritonga, R. P., Candra, R. A., Anshari, G. Z., Bowen, J. C., Perryman, C. R., Novita, N.
  2024; 14 (1): 11459

- **Effect of Drought and Heavy Precipitation on CH4 Emissions and delta C-13-CH4 in a Northern Temperate Peatland** *ECOSYSTEMS*
  Perryman, C. R. R., McCalley, C. K. K., Shorter, J. H. H., Perry, A. L. L., White, N., Dziurzynski, A., Varner, R. K. K.
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- **Microtopography Matters: Belowground CH4 Cycling Regulated by Differing Microbial Processes in Peatland Hummocks and Lawns** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
  Perryman, C. R., McCalley, C. K., Ernakovich, J. G., Lamit, L. J., Shorter, J. H., Lilleskov, E., Varner, R. K.
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- **Dominance of Diffusive Methane Emissions From Lowland Headwater Streams Promotes Oxidation and Isotopic Enrichment** *FRONTIERS IN ENVIRONMENTAL SCIENCE*
  Robison, A. L., Wollheim, W. M., Perryman, C. R., Cotter, A. R., Mackay, J. E., Varner, R. K., Clarizia, P., Ernakovich, J. G.
  2022; 9

- **Heavy metals in the Arctic: Distribution and enrichment of five metals in Alaskan soils** *PLOS ONE*
  Perryman, C. R., Wirsing, J., Bennett, K. A., Brennick, O., Perry, A. L., Williamson, N., Ernakovich, J. G.
  2020; 15 (6): e0233297

- **Thaw Transitions and Redox Conditions Drive Methane Oxidation in a Permafrost Peatland** *JOURNAL OF GEOPHYSICAL RESEARCH-BIOGEOSCIENCES*
  Perryman, C. R., Mccalley, C. K., Malhotra, A., Fahnestock, M., Kashi, N. N., Bryce, J. G., Giesler, R., Varner, R. K.
  2020; 125 (3)