## **Biogeochemistry Working Group**

## 30th Annual CESM Workshop June 10th, 2025

## Tuesday, June 10th, 08:30 am – 12:00 pm

\* All times are MDT; **Speakers**: 15 minutes total for each speaker. Plan for a 10-12 min. talk and please leave 3-5 min at the end of your slot for questions.

Time	Торіс	Speakers
	BGC	
8:30	Update on land carbon change in Flat10MIP experiments	Abby Swann
8:45	Land Carbon Cycle Dynamics in Flat10MIP simulations	Charlie Koven
9:00	The role of AMOC in TCRE and ZEC in emissions driven simulations	Anastasia (Natassa) Romanou <b>[VIRTUAL]</b>
9:15	Understanding the atmospheric chemistry imprint of tropical deforestation	Jim Randerson
9:30	Comparative ability of soil biogeochemistry submodels for reproducing terrestrial carbon cycling in a grassland multiple global change experiment	Katherine Rocci
9:45	Modeling the Terrestrial Mercury-Carbon Cycle in the Arctic	Christine Olson
10:00	Break	
	BGC + Polar	
10:30	The imprint of Southern Ocean storms on modeled surface chlorophyll, their drivers and satellite biases	Cara Nissen <b>[VIRTUAL]</b>
10:45	Simulating the Oceanic Nitrous Oxide (N2O) - Based on CESM2	Shanlin Wang
11:00	Sea icescape and Antarctic marine ecosystem productivity in the CESM2	Laura Landrum
11:15	Quantifying changes in phytoplankton productivity under sea ice in the Arctic and Southern Ocean	Courtney Payne
11:30	Alaskan Salmon Responses to Changing River Conditions	Kristina Black
11:45	Increasing boreal fires reduce future global warming and sea ice loss	Edward Blanchard- Wrigglesworth

## Posters

Photosynthetic Acclimation to Elevated CO2 in land model Reveals Large Ecosystem Carbon Gains via Leaf Nitrogen Savings	Qing Zhu
Addition of macromolecular marine DOM cycling to CESM-MARBL	Rob Letscher
Impacts of Point-Source and Large-Scale Iron Fertilization on Phytoplankton Community Dynamics: Insights from CESM Simulations	Riyanka Roy Chowdhury
Modeling Hydrothermal Dissolved Organic Carbon Sources and Sinks with Seafloor Crustal Age	James Lin
Quantifying the value of Antarctic polynyas on the ecosystem from phytoplankton to penguins	Alice DuVivier
Patterns and timing of emergence of climate signals in Antarctic sea ice and ecosystems	Kristen Krumhardt