BioGeoSCAPES
Ocean metabolism and nutrient cycles on a changing planet

BioGeoSCAPES AccelNet Project Office
info@biogeoscapes.org | www.biogeoscapes.org
August 2025 Newsletter

Newsletter Highlights

Science Plan editing is nearly complete.

Share your talent in the Science Plan Cover Art Competition!

Modeling webinars available on YouTube.

Join us at OSM26 in Glasgow, Scotland!

CONNECT WITH US!

Click here to follow BioGeoSCAPES on LinkedIn!

Visit **https://biogeoscapes.org** and scroll to the bottom to subscribe for future Newsletters and other email updates.

SCIENCE PLAN

Thank you to the interdisciplinary team of 60+ volunteer authors for their outstanding contributions to BioGeoSCAPES Science Plan. Final edits are underway and we look forward to sharing the full BioGeoSCAPES Science Plan later in 2025.

Looking to share your artistic talent with us? Check out our cover art competition!

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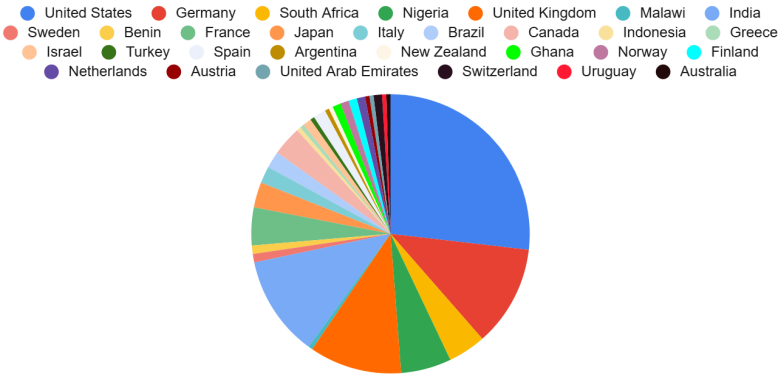
ACCELNET ACTIVITIES

Modeling

In May 2025, BioGeoSCAPES was thrilled to welcome over 450 live participants representing 30 nations (see national representation in chart at right) to our three-part Modeling Webinar Series! The series explored a range of approaches, including cellular-scale, biogeochemical, network, and statistical modeling, and sparked exciting conversations across disciplines.

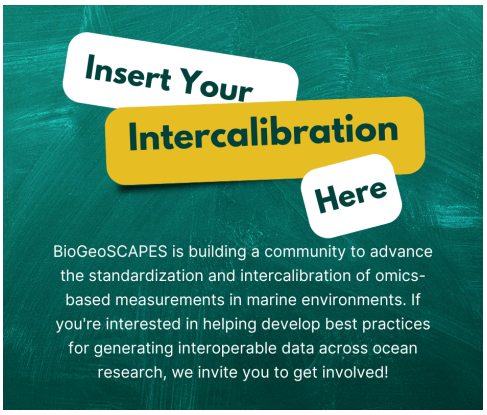


Missed a session? All three recordings are now available on the BioGeoSCAPES YouTube Channel.

- **Webinar 1: Biogeochemical Models**
- **Webinar 2: Network and Statistical Approaches**
- **Webinar 3: Cellular Scale Models**

An in-person modeling workshop co-sponsored by AccelNet BioGeoSCAPES and the Center for Chemical Currencies of a Microbial Planet (C-CoMP) is scheduled for September 2025. We can't wait to share the results of this workshop with you in a future newsletter!

Standardization and Intercalibration



There is currently no single gold standard practice for the collection, preservation, or processing of metagenomics, metatranscriptomics, metaproteomics, metabarcoding, and eDNA samples—nor is there a sense of how variable these measures might be among labs or research cruise endeavors. Intercomparison and intercalibration of 'omic studies is a critical component of BioGeoSCAPES. A working group to address these challenges is organizing now. Visit **biogeoscapes.org/standardizationandintercalibration** to learn more!

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Join BioGeoSCAPES at the Ocean Sciences Meeting 2026 in Glasgow!

BioGeoSCAPES is excited to be part of the Ocean Sciences Meeting 2026 in Glasgow, Scotland! We invite you to engage with our community through two key events:

Town Hall: BioGeoSCAPES: Querying the Ocean's Microbial Life Support System

Join us to learn about progress toward the international BioGeoSCAPES program, hear updates from community initiatives, and contribute your ideas to help shape future research directions. All are welcome, whether you're new to BioGeoSCAPES or already engaged!

Stay tuned for specific dates and times for these events, and visit www.biogeoscapes.org for more details.

Scientific Session: OB006 - BioGeoSCAPES: Deciphering Ocean Metabolism Through Interdisciplinary Science

We invite submissions that leverage interdisciplinary science (biogeochemistry (including organic and inorganic), rates, 'omics approaches, models or combinations of these approaches) to address one of the three pillars of the BioGeoSCAPES program: 1) STATES: mapping key ocean metabolisms over space and time; 2) RATES: assessing mechanisms connecting microbial metabolisms and productivity to biogeochemical cycles; or 3) FATES: predicting interactions with environmental factors to provide risk and vulnerability assessments for key ocean metabolisms on a changing planet. We particularly encourage submissions focusing on or bridging multiple scales from cellular to community to planetary.

Click here or visit www.agu.org/ocean-sciences-meeting to submit an abstract to this session.

Abstract Submission Deadline: 20 August 2025, 23:59 EDT/03:59 UTC

Scientific Session: OB023 - Quantifying and Linking Omics, Physiology & Models in Marine Microbiology

Organized by members and mentees from the PRIMO and BioGeoSCAPES consortia, this session is keen on contributions that quantify marine microbial processes and their impacts on the environment, compare "omics-inferred" activity with rate measurements, and benchmark emerging proxies and workflows. We are also interested in studies that integrate laboratory manipulations, time-series observations, and/or mechanistic or statistical models. This session aims to catalyze inter-methodological dialogue between experimentalists and modelers, paving the path from cellular machinery to ecosystem functioning, which is a major goal of the international working groups PRIMO (https://primoscorwg.org/) and BioGeoSCAPES (https://biogeoscapes.org).

Click here or visit www.agu.org/ocean-sciences-meeting to submit an abstract to this session.

Abstract Submission Deadline: 20 August 2025, 23:59 EDT/03:59 UTC

We can't wait to see you in Glasgow!

RESOURCES

Jobs & Postdocs

Looking for a postdoc or other position? Check out **www.biogeoscapes.org/jobs** for an up-to-date list of opportunities! Want to advertise a position with us? Email info@biogeoscapes.org with the details.

Funding Database

Looking for funding to support your BioGeoSCAPES-relevant collaboration? Our team maintains a list of funding opportunities that can be sorted by funding agency, partner nations, and other metrics. **Click here** to check it out.

Upcoming Opportunities List

Looking for upcoming BioGeoSCAPES-relevant activities like workshops, conferences, and webinars? Our team maintains a list of opportunities and we welcome additions if you know of something we should include! **Click here** to check it out.

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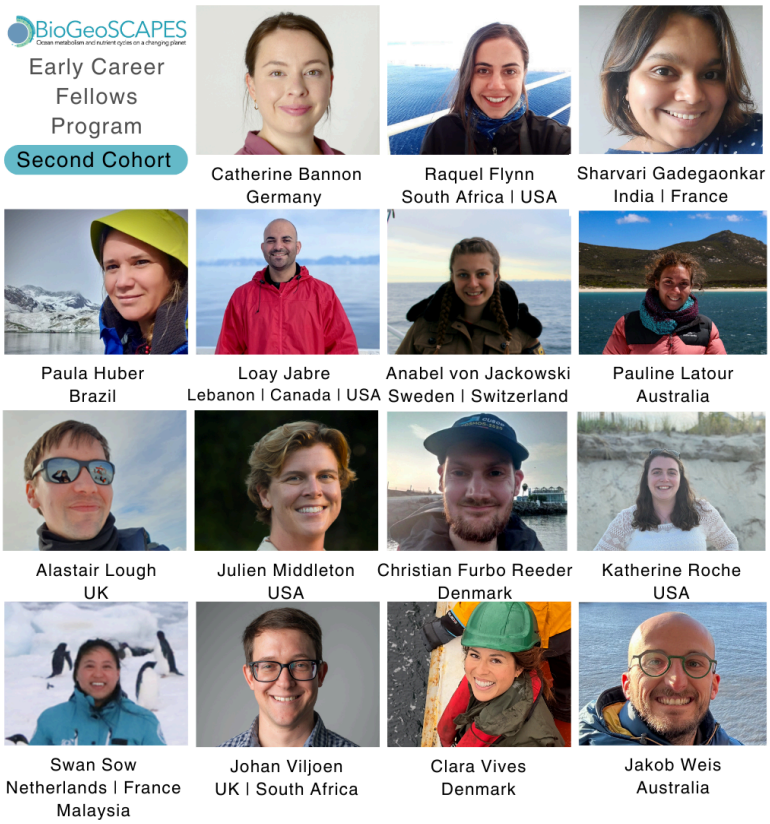
ACCELNET BioGeoSCAPES Early Career Fellows

Second Fellows Cohort Workshop

We were so excited to bring together our 2nd Cohort of Early Career Fellows for an in-person workshop in Santa Monica, CA. This group of ECRs, representing many regions of the world and many aspects of BioGeoSCAPES-relevant research, was excited to meet in-person after months of virtual meetings. This group has exciting plans for networking tools and capacity development events. Check back soon for updates! **Click here** to learn more about BioGeoSCAPES efforts to support members of our Early Career community!



About the cohort: This cohort includes 15 early career researchers from across the world working in experimental and modeling backgrounds in the areas of ocean metabolism, biogeochemical cycling, biological oceanography, chemical oceanography, and marine microbiology. **Click here** to learn more about the BioGeoSCAPES Fellows Program.

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News from our network

Spotlight on SCOR Working Group 170: PRIMO - Physiology and Rates in Microbial Oceanography

Understanding how marine microbes respond to environmental change is essential for advancing ocean science and improving the accuracy of biogeochemical models. While 'omics technologies have expanded our understanding of microbial potential, a major gap remains in translating this information into microbial activity.

PRIMO is addressing this gap through the development of the PRIMO Inventory of Oceanographic Physiological Assays. This community-curated resource synthesizes both well-established and emerging physiological metrics used to quantify microbial activity from cellular to community levels. Organized into four key categories (Primary Production, Secondary Production, Nutrient Fluxes, and Interactions), the inventory includes details on methodological units, assumptions, uncertainties, and modeling relevance. It aims to serve as a foundation for co-designing novel physiological metrics that can act as 'currency converters' between 'omics datasets and biogeochemical models.

PRIMO needs your feedback to improve and expand this living resource.

Scan the QR code to learn more and share your feedback!