



NMDC Newsletter

The Microbiome Standard

-Summer 2025-

Update from the Leadership Team

It's been a busy summer so far! In May, we submitted our proposal for NMDC's Phase III that detailed our plans for the next four years to advance production services and integrate AI into all aspects of the NMDC. We thank DOE's Biological and Environmental Research program for hosting an external review panel at the end of June. We have made several updates to our software and video tutorials for the [Field Notes mobile app](#) and the [Submission Portal](#). It has been fantastic to participate in several conferences and workshops along with our Ambassadors, with many more in the next couple months. We celebrated team member Simon Roux for his well-deserved recognition as the 2025 ASM Microbiome Data Prize recipient at ASM Microbe. Please read on to learn more about our team's activities and for opportunities to engage.

Announcements

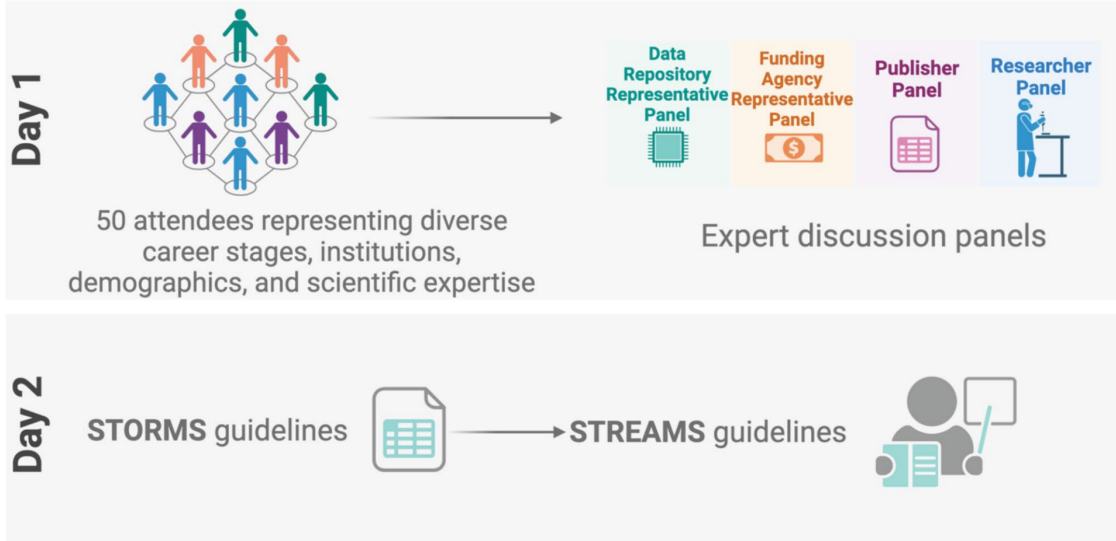
- We have new [Jupyter notebooks](#) available for community use.
- Check out the second part of our latest Science Story [“NMDC Community members put mobile metadata management to the test”](#) highlighting Cassie Miller and how user research feedback aided the development of the NMDC Field Notes mobile app!
- Learn more about our 2025 Ambassadors in our [NMDC Snapshots](#) series!

AMBASSADOR SNAPSHOTS



Publications

In April, we published the workshop report, [“Microbiome data management in action workshop: Atlanta, GA, USA, June 12–13, 2024”](#) in *Environmental Microbiome*, outlining the workshop that kicked off the [STREAMS](#) efforts.



Releases

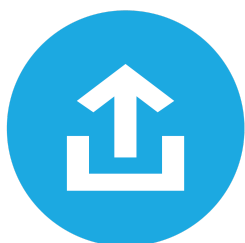
Software updates

- Our schema is now on version [11.9.1](#) which includes support for workflow analyses coming from multiple instrument runs and improved modeling for mass spectrometry
- Improvements to visualizations including the Sankey plot and map feature
- Improved bulk download feature
- Selected NMDC Runtime API endpoints have been updated to include real time referential integrity checks and indexes were added for performance improvements
- Our integration efforts with NCBI allowed the team to successfully submit [1000 Soils](#) data from the NMDC to NCBI



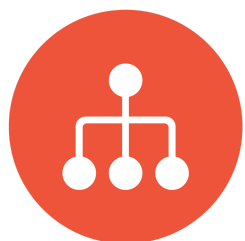
NMDC Field Notes mobile app

- We have a new Field Notes tutorial video available [here](#)
- The NMDC Field Notes mobile app was officially launched last quarter! Download it now on the Apple App Store or Google Play



Updates to the NMDC Submission Portal

- Check out the updated Submission Portal [tutorial video](#)!
- Added support for additional sample types within submissions
- Continued supporting JGI and EMSL metadata submissions
- Added and improved validation parameters and guidance for several metadata terms



Workflow updates in NMDC EDGE

- We now have the PacBio long-read workflow available in NMDC EDGE
- The bulk workflow submission process has been streamlined



New data in the NMDC Data Portal

- We have added 332 samples from studies about [peatland soils, sea water and ice](#), and [freshwater samples collected during an algal bloom](#)
- We have been [processing soil, freshwater, and benthic metagenome samples](#) from the National Ecological Observatory Network (NEON) as well as soil samples from the [1000 Soils Research Campaign](#). Metagenomes and metatranscriptomes for soil samples were also processed from the [Harvard Forest Long Term Ecological Research Site](#)

For usability feedback, errors, or questions on all NMDC products and software, please contact us through support@microbiomedata.org.

Events

- May 20-22: [Sequence to Function: Applications and Analysis for the Future](#) conference in Santa Fe, NM. We hosted a workshop (with 2025 Ambassador Cassie Miller), gave an invited talk, and presented several posters
- June 17-18: We attended and presented at the [Microbiome Centers Consortium](#) meeting
- June 17th: We hosted a workshop with [NSURP](#)
- June 19-23: We convened two sessions at [ASM Microbe 2025](#) in Los Angeles, CA and presented several other exciting efforts. Congratulations to Simon Roux as the 2025 ASM Microbiome Data Prize awardee!



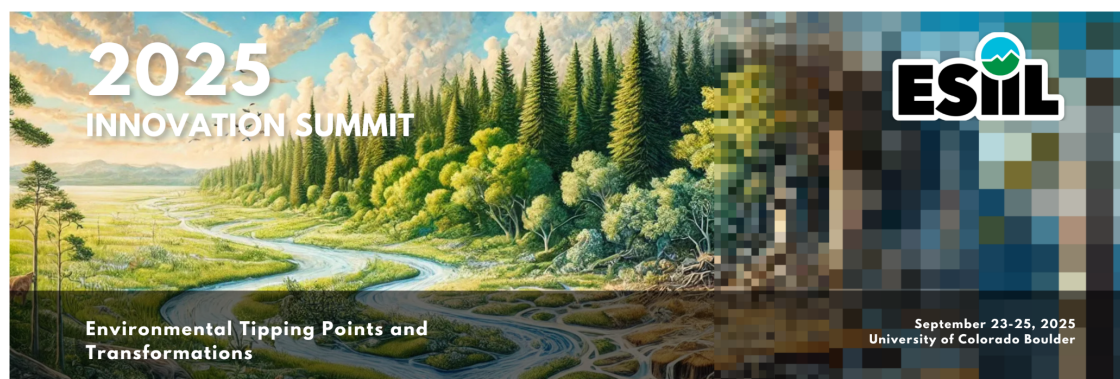
- June 28-July 2: Several team members and NMDC Champions attended and presented at the [Mycological Society of America \(MSA\) annual meeting](#) in Madison, WI
- July 7-11: We attended and presented at the [SciPy](#) meeting in Tacoma, WA



- July 17th: We hosted (with 2025 Ambassador Jessica Han) a virtual workshop at [ASPB: Plant Biology 2025](#)
- July 22-25: We hosted a session at the [ESIP](#) meeting in Seattle, WA and presented NMDC updates in the context of AI-ready data

Upcoming Events

- July 29-31: The Genomic Standards Consortium [GSC25 meeting](#) will be held in Cambridge, UK
- August 6-9: [EcoFAB 2025 meeting](#) in Pacific Grove, CA
- August 10-15: [Ecological Society of America \(ESA\) 2025 annual meeting](#) in Baltimore, MD
- Sept. 2-5: [MANA 2025](#) in Banff, Canada
- Sept. 23-25: [ESIIL Innovation Summit](#) in Boulder, CO



- Oct. 15-17: [NEON Convergence Summit](#) in Boulder, CO

Opportunities

Would you like to help us create intuitive, user-friendly, and community-driven products? Sign up for user research on our [website](#).

Connect with us on [Instagram](#), [X](#), [Bluesky](#) and [LinkedIn](#)!



[Check out our 2024 Annual Report!](#)

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