



NMDC Newsletter

The Microbiome Standard

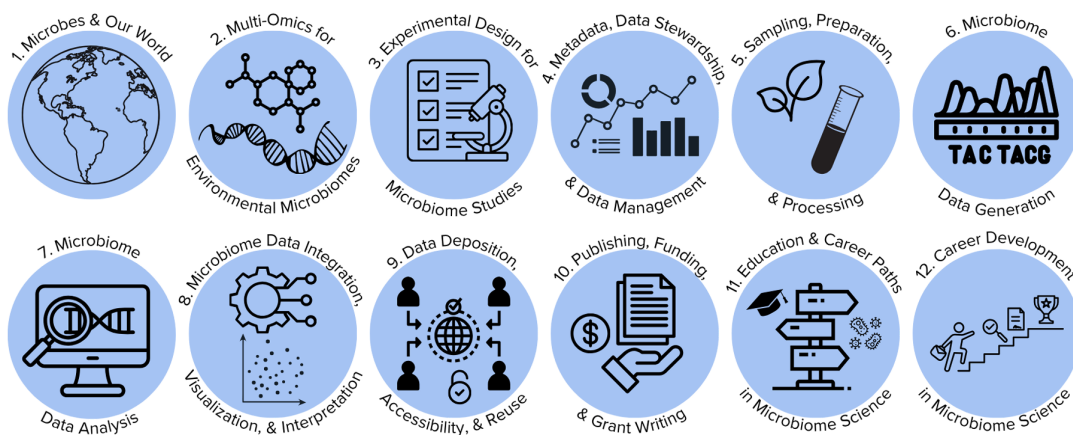
Spring 2026

Update from the Leadership Team

We have many updates to share since our last newsletter in summer 2025. Due to a shift in program budget and priorities, we are focusing on core NMDC functions this year along with support for infrastructure with our partners at the JGI, EMSL, KBase, and ESS-DIVE. Previous initiatives are [outlined](#) on our website. We thank DOE's Biological and Environmental Research program for continued support of the NMDC. We are delighted to share the launch of the [Microbiome Certificate Program](#)! Please read on to learn more about our team's activities and upcoming opportunities.

Announcements

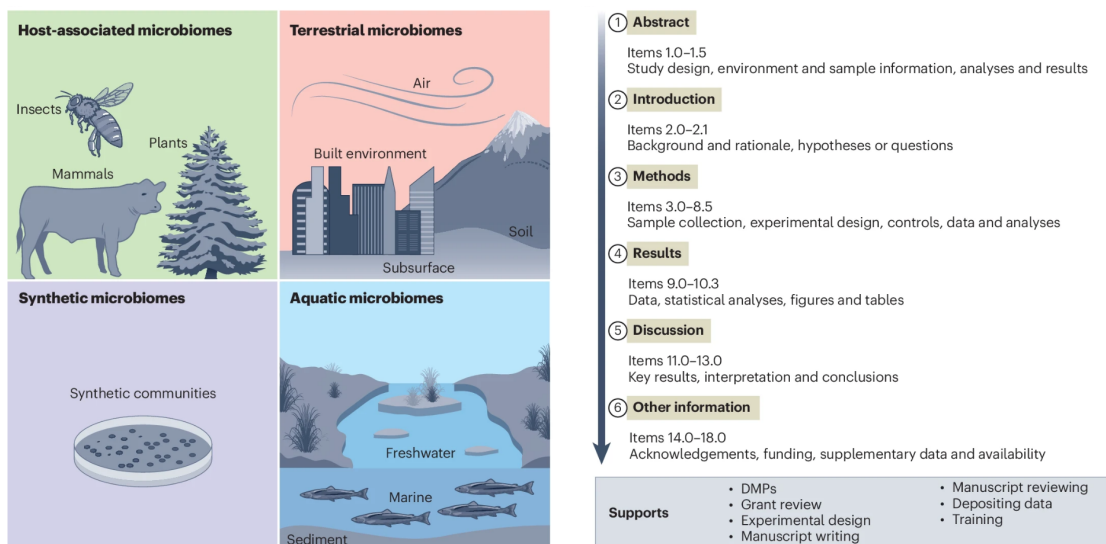
- We have launched the [Microbiome Certificate Program](#), a 12-module program aimed to equip individuals with the necessary knowledge and skills to contribute to the interdisciplinary field of microbiome science. In partnership with the American Society for Microbiology, the Certificate Program is available through the [ASM Online Learning Center](#). Materials are also available on [Zenodo](#) for educators interested in accessing modules for their own courses.



- We are no longer actively supporting or maintaining the following resources and engagement programs: the NMDC EDGE platform, the Field Notes mobile app, and the Ambassador and Champion programs. Further information can be found on the [Past Initiatives](#) page. We are grateful for the various contributions to these efforts over the past several years. If you have feedback, please share with our team at support@microbiomedata.org.

Publications

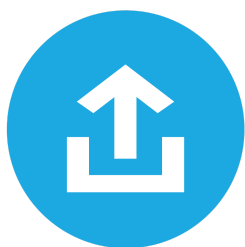
In December, we published the [STREAMS guidelines](#) in *Nature Microbiology* to improve reporting and data sharing for environmental, synthetic, and non-human host-associated microbiome studies. The guidelines include input from 248 researchers spanning 28 countries.



Releases

Software updates

- Our schema is on [version 1.17.1](#). Updates include improved modeling of provenance metadata and adoption of the [Unified Code for Units of Measure](#) standard.
- We successfully migrated the NMDC software stack to Google Cloud, enhancing system resilience and providing seamless data access across high-performance computing resources.
- We have also enhanced data integrity and discovery through improved workflow validation and new [API](#) linked data endpoints for complex schema traversal. Our API usability improvements are based on user research.



Updates to the Submission Portal

- The Submission Portal has several updates to improve the user experience, including flexible information entry and status tracking for approval, release, and data sharing with user facilities for sample shipment.
- We expanded the “Multi-omics Data” section to capture information about how samples are processed and how data is generated to improve downstream analyses, particularly for mass-spectrometry data.



Updates & new data in the Data Portal

- We have re-designed our study pages for a more streamlined view and also enabled the export of metadata directly for studies and biosamples. We also have made available Krona plots for read-based taxonomic analysis results in the Data Portal.
- More data is available for analysis! We have processed 2,872 datasets through our natural organic matter analysis workflow, 1,072 datasets for metagenome binning, 1,863 metabolomics analyses, and 47 datasets for metaproteomics. [Studies](#) and samples for the Environmental Molecular Sciences Laboratory's Molecular Observatory Network ([MONet](#)) project are now available.

For feedback or questions, please contact us support@microbiomedata.org.

Events

- August 10-15: Alicia Clum presented at the [Ecological Society of America \(ESA\) 2025 annual meeting](#) on “The power of FAIR data sharing infrastructure and data standards in the age of AI” in Baltimore, MD



- Oct. 15-17: Emiley Eloë-Fadrosh served on the Steering Committee and presented on the importance of partnerships at the [NEON Convergence Summit](#) in Boulder, CO.
- Feb 23-25: [Biological Systems Science Division Principal Investigators' Meeting](#) in Crystal City, VA. Chris Mungall presented during the AI breakout session, staff presented posters and hosted a session on how to submit metadata to NMDC.
- Mar 2-4: [EMSL-JGI Joint User Meeting](#) in Seattle, WA. Staff presented posters, hosted sessions on how to submit metadata to the NMDC, and the Submission Portal and Data Portals were featured in the Data Integration and Modeling workshop.



Upcoming Events

- June 4-7: [ASM Microbe 2026](#) in Washington D.C. NMDC team members will be hosting a [session](#), “AEM-210 - Envisioning the Future of Environmental Microbiome Research: Integration, Innovation, and Impact” as part of the ASM Applied & Environmental Microbiology Meeting!

Opportunities

We invite you to participate in a brief (<5 minutes) [survey](#) to help us better understand how our products can support your research.

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

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



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