



## NMDC Newsletter

# The Microbiome Standard

Summer 2026

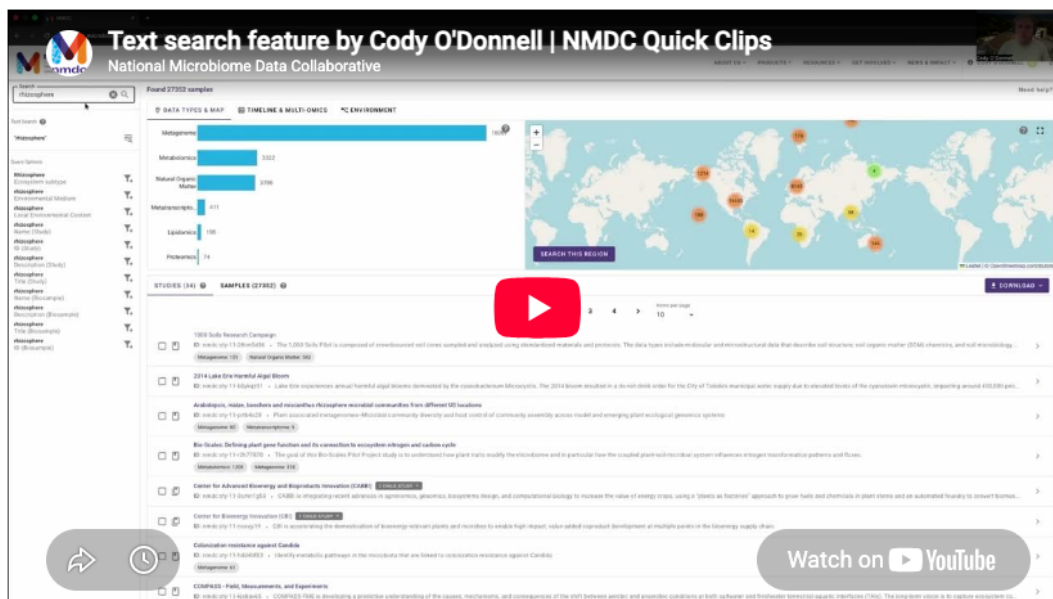
## Update from the Leadership Team

We have exciting updates to share about our AI-driven data ingestion through the [Submission Portal](#), along with full text search capabilities and a new layout for the [Data Portal](#). A new agentic pipeline to ingest sample and data records is helping us scale the availability of high-quality standardized data ([release 1.0.0](#)). We are also launching [NMDC Quick Clips](#) to highlight new features and capabilities. Please read on to learn more about our team's activities and for opportunities to engage.

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## Announcements

- Check out our new [NMDC Quick Clips](#): Brief video tutorials that highlight new features, data access, and functionality across the NMDC platform.



- We have used our new agentic ingest pipeline to add the [Microflora Danica project](#) to NMDC's Data Portal. Microflora Danica is an atlas of Danish environmental microbiomes, generated from 10,683 samples, recently published in [Nature](#).
- We extended the NMDC schema and metadata model to support isolate sample metadata ([version 11.22.0](#)), aligned with the Genomic Standards Consortium ([GSC](#)) standards and JGI's Genomes OnLine Database ([GOLD](#)).

## Publications

In June, we published a "Tips and Tools" article on the Microbiome Science Certificate Program for workforce development and multi-omics expertise: Kelliher JM et al. Microbiome Science Certificate Program for workforce development and multi-omics expertise. J Microbiol Biol Educ.0:e00012-26.

<https://doi.org/10.1128/jmbe.00012-26>

## Releases

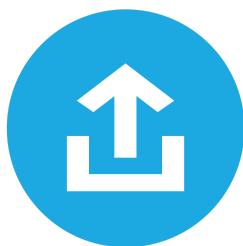
### Software updates

- We released version [1.0.0](#) of the NMDC Python client library, which researchers can use to access the NMDC API from within their Python scripts. We also

renamed it from “nmdc-api-utilities” to “nmdc-client”. Try it out at

[pypi.org/project/nmdc-client](https://pypi.org/project/nmdc-client).

- We updated the [NMDC API](#) so it automatically records when metadata records have been updated, and explicitly designates older workflow executions as having been superseded by newer ones. We also automated more of our database migration process and introduced facilities for agentic development.
- Version [11.22.0](#) of the NMDC Schema introduces isolate modeling.
- We released [version 1.0.0](#) of our agentic ingest pipeline, which is a mix of deterministic Python code and “Agent Skills” using a human-in-the-loop design to allow AI-assisted ingest from external data sources.



## Updates to the Submission Portal

- The NMDC Suggester tool now leverages additional submission materials (e.g., study description, publication DOIs, and other metadata) to provide AI-generated suggestions. For details, please see our [Submission Portal documentation](#).
- The structure of submissions has been updated to allow users to submit multiple sample sets under a single submission, streamlining the submission process.
- Support to capture metadata about microbial isolates has been added.



## Updates & new data in the Data Portal

- We have implemented full text search in the Data Portal and added indexing for searching by identifiers. For more information on which fields are used for full text search, please see our [Data Portal documentation](#).
- We updated our metagenome workflow to use [SemiBin2](#) in alignment with the JGI and have completed processing approximately 2,000 [NEON soil metagenomes](#) which predate the NEON and JGI partnership.
- We have new natural organic matter and metabolomics results for soil samples over a [climate and vegetation gradient](#), and new metabolomics results for [freshwater lake samples from Wisconsin](#).

## Events

- May 28: Portal Leads, Montana Smith (Submission Portal) and Alicia Clum (Data Portal), hosted the “Building Blocks for AI-ready SFA data” [webinar](#).
- June 4-7: NMDC team members Emiley Elie-Fadrosh and Simon Roux traveled to Washington, DC for ASM Microbe. Simon was heavily involved as a member of the AEM program committee. Emiley was recognized as a [2026 Elected Fellow](#) of the American Academy of Microbiology.



## Upcoming Events

- August 12-14: Genomic Standards Consortium ([GSC26](#)) in Rotorua, New Zealand. NMDC co-PI and Submission Portal Lead, Montana Smith, will be giving a talk titled “Updates to MlXS and v7.0”.
- August 16-21: [ISME20](#) in Auckland, New Zealand

# Opportunities

Do you have questions about our community-driven products? Sign up to connect with NMDC's Product Owners [here](#).

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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