

Data Management Plan

Data Collection and Storage:

This project will generate the following data types: geochemical data (ions, methane concentration and the isotopic concentration of the methane); geochemical flux data (methane); microbial community assemblage data (16S and 18S rRNA amplicon) and functional gene data (pmoA). Sediment samples collected for this study will be archived in the Thurber laboratories under proper conditions for long-term storage (e.g. -80°C for DNA samples), providing a replicate series of samples for further and future analysis. Digital data, including imagery, sequence, and environmental data, generated during this project will be archived on the redundant and backed up Thurber lab computer system. Metadata and primary data, when appropriate, will be entered into the Antarctic Master Directory, via the National Antarctic Data Coordination Center in Directory Interchange Format (DIF).

Access and sharing of data:

All primary data will be made available upon quality assurance and within three years or publication, whichever comes first. All data sets will include metadata, calibration information (when appropriate) and sample site coordinates so that collected data may be geo-referenced. Seafloor images and video will be used for outreach purposes and made available for educational use on Thurber's website. Data will be disseminated through publications in scientific journals and presentations at scientific conferences. 16S and 18S gene sequence will be uploaded to GenBank at the time of publication and full Amplicon results will be uploaded into MG-RAST in addition to being assigned a doi from the Center for Genome Research and Biocomputing at Oregon State University. This will provide many avenues for data access including direct download.

After publication, any additional data will be made available through Thurber Lab's website. Additionally, all protocols developed and used during this study will be kept on file so that all analyses can be replicated.

We will follow the requirements of NSF that data will be submitted to the correct repository within two years of collection if not earlier.