

## Linta Reji

Princeton University  
Department of Geosciences  
Guyot Hall, Rm 41  
Princeton, NJ 08544

Phone: (650) 384 9245  
Email: [lreji@princeton.edu](mailto:lreji@princeton.edu)

### EDUCATION

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- 2020                      **Ph.D. in Environmental Earth System Science**, Stanford University, CA  
Department of Earth System Science  
Advisor: Dr. Christopher A. Francis
- 2014                      **Bachelor of Science (Honors)**, Stanford University, CA  
Earth Systems - Biosphere

### PROFESSIONAL EXPERIENCE

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- July 2024                      **Assistant Professor (Incoming)**, The University of Chicago, IL  
Department of the Geophysical Sciences
- 2020-present                      **Postdoctoral Research Associate**, Princeton University, NJ  
Department of Geosciences  
Advisor: Dr. Xinning Zhang

### COURSES AND WORKSHOPS

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- 2017                      Microbial Genomics and Metagenomics Workshop  
Joint Genome Institute, Walnut Creek, CA
- 2015                      Hopkins Microbiology Course  
Hopkins Marine Station, Monterey, CA
- 2011                      Sustainability of Tropical Heritage  
International Mobility Program Summer Course  
University Kebangsaan Malaysia, Bangi, Malaysia

### PEER-REVIEWED PUBLICATIONS

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- 2022                      **Reji L.**, Zhang, X. Genome-Resolved Metagenomics Informs the Functional Ecology of Uncultured Acidobacteria in Redox Oscillated Sphagnum Peat. *mSystems*. DOI: <https://doi.org/10.1128/msystems.00055-22>.

- 2022 Darnajoux, R., **Reji L.**, Zhang X. R., Luxem K. E., Zhang X. Ammonium sensitivity of biological nitrogen fixation in anaerobic diazotrophs and coastal salt marsh sediments. *Journal of Geophysical Research: Biogeosciences* 127, e2021JG006596.
- 2022 **Reji L.**, Cardarelli E.L., Boyce K., Bargar J., Francis C.A. Diverse ecophysiological adaptations of subsurface Thaumarchaeota in floodplain sediments revealed through genome-resolved metagenomics. *ISME J*, 16, 1140-1152. DOI: 10.1038/s41396-021-01167-7.
- 2020 **Reji, L.**, Francis, C.A. Metagenome-assembled genomes reveal unique metabolic adaptations of a basal marine Thaumarchaeota lineage. *ISME J* 14: 2105–2115. DOI: 10.1038/s41396-020-0675-6.  
Short-listed for the ISME J 2020 Best Paper Award:  
<https://www.nature.com/collections/acidjaeidg>.
- 2020 Tolar, B. B., **L. Reji**, J. M. Smith, M. Blum, J. T. Pennington, F. P. Chavez, and C. A. Francis. Time series assessment of Thaumarchaeota ecotypes in Monterey Bay reveals the importance of water column position in predicting distribution-environment relationships. *Limnology and Oceanography*. 65 (9). DOI: 10.1002/lno.11436.
- 2020 **Reji, L.**, B. B. Tolar, F. P. Chavez and C. A. Francis. Depth-differentiation and seasonality of planktonic microbial assemblages in the Monterey Bay upwelling system. *Frontiers in Microbiology*. 11: 1075. DOI: 10.3389/fmicb.2020.01075.  
Featured in the Aquatic Microbiology Editor's Pick 2021 collection:  
<https://www.frontiersin.org/research-topics/22105/aquatic-microbiology-editors-pick-2021>.
- 2019 **Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Depth distributions of nitrite reductase (*nirK*) gene variants reveal spatial dynamics of thaumarchaeal ecotype populations in coastal Monterey Bay. *Environmental Microbiology*. DOI: 10.1111/1462-2920.14753.
- 2019 **Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Differential co-occurrence relationships shaping ecotype diversification within Thaumarchaeota populations in the coastal ocean water column. *ISME J*. DOI: 10.1038/s41396-018-0311-x.

## PRE-PRINTS

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- 2023 **Reji L.**, Darnajoux, R., Zhang, X. 2023. A Genomic View of Environmental and Life History Controls on Microbial Nitrogen Acquisition Strategies. bioRxiv. DOI: 10.1101/2023.08.10.552805.

## HONORS, FELLOWSHIPS AND AWARDS

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- 2023 Top-Performing Reviewer, *mSystems*, American Society for Microbiology
- 2022 Water Grand Challenge Award

Awarded to Linta Reji (Co-PI) and Xinning Zhang (Co-PI)  
High Meadows Environmental Institute, Princeton University

- 2018 Research grant award  
Dr. Earl H. Myers & Ethel M. Myers Oceanographic & Marine Biology Trust
- 2018 Award for the best research talk, Annual Research Review  
School of Earth, Energy and Environmental Sciences, Stanford University
- 2016 Award for the best research poster, Annual Research Review  
School of Earth, Energy and Environmental Sciences, Stanford University
- 2015 McGee Levenson Research Grant  
School of Earth, Energy and Environmental Sciences  
Stanford University
- 2014 Dean's Award for Undergraduate Academic Excellence  
Stanford University
- 2013 Summer Undergraduate Research (SESUR) Fellowship  
Stanford University
- 2005 - 2008 Promotion of Excellence Among Gifted Children  
A competitive scholarship from the Kerala State Government, India

## TEACHING AND MENTORING

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- 2021 Junior Project mentor, Isabel Rodrigues '23, Princeton University
- 2021 Assistantship in Instruction, GEO 417: Environmental Microbiology  
Princeton University
- 2020-2021 Postdoctoral mentor, ReMatch undergraduate research-mentoring program  
Princeton University
- 2018 Teaching Assistant, Hopkins Microbiology Course  
Hopkins Marine Station, Stanford University
- 2017 Research mentor  
Summer Undergraduate Research in Geoscience and Engineering SURGE  
Stanford University
- 2017 Teaching assistant, ESS 107: Control of Nature, Stanford University

## PROFESSIONAL SERVICE

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- 2022-2023 Convener, Workshop on spatially structured microbial communities.  
Princeton Center for Theoretical Sciences.  
Co-conveners: Dr. Xinning Zhang, Dr. Sujit Datta, Dr. Alejandro Martinez-Calvo, Dr. Ned Wingreen

2021-2022	Organizer, Environmental Geology & Geochemistry Seminar Department of Geosciences, Princeton University Co-organizer: Dr. Sarah Shackleton
2021	NSF grant proposal reviewer
2020-current	Reviewer for <i>Science</i> , <i>Nature Communications</i> , <i>Frontiers in Microbiology</i> , <i>Water Research</i> , <i>mSystems</i> , <i>Environmental Microbiology</i>
2017	Program assistant Summer Undergraduate Research in Geoscience and Engineering SURGE Stanford University
2016-2018	Convener, Winogradsky Geomicrobiology reading group, Department of Earth System Science, Stanford University

## FIELD WORK

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2021-present	The Pine Barrens, NJ The Watershed Institute, Hopewell, NJ Barnegat Bay, NJ
2015-2017	R/V Rachel Carson; monthly cruises to Monterey Bay, CA
2013-2014	R/V Polaris, USGS research cruises in San Francisco Bay, CA

## SELECTED CONFERENCE PRESENTATIONS

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2023	<b>Reji, L.</b> , Zhang, X. Oxygen variability elicits differential responses in microbial carbon mobilization across wetlands: implications for wetland resilience under hydrological regime shifts. Goldschmidt 2023, Lyon, France.
2022	<b>Reji, L.</b> , Zhang, X. Genome-resolved metagenomics informs functional ecology of uncultured Acidobacteria in redox oscillated sphagnum peat. ASM-Microbe, Washington, D.C.
2020	<b>Reji, L.</b> , B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Genome-resolved metagenomics reveals lineage-specific metabolic strategies within marine nitrifier subpopulations. Ocean Sciences Meeting, San Diego, CA.
2019	<b>Reji, L.</b> , B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Microbial profiling of the Monterey Bay upwelling system using genome-resolved metagenomics (Poster). JGI User Meeting, San Francisco, CA.
2018	<b>Reji, L.</b> , B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Co-occurrence Patterns Shaping Thaumarchaeal Ecotype Diversification in the Coastal Ocean Water Column (Oral Presentation). Ocean Sciences Meeting, Portland, OR.

- 2018 Tolar, B. B., **L. Reji**, J. M. Smith, F. P. Chavez, and C. A. Francis. Depth and Season as Primary Drivers of Thaumarchaeota Ecotype Dynamics and Activity in Monterey Bay (Oral Presentation). Ocean Sciences Meeting, Portland, OR.
- 2018 **Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Exploring thaumarchaeal ecotype diversification in the coastal ocean using metagenomic, metatranscriptomic, and modeling approaches (Poster). Joint Genome Institute Annual User Meeting, San Francisco, CA.
- 2017 Tolar, B. B.\*, **L. Reji\***, J. M. Smith, F. P. Chavez, C. A. Francis. Combining Molecular, Genomic, and Isotopic Techniques to Examine the Diversity and Activity of Marine Thaumarchaeota in Monterey Bay (Poster). Joint Genome Institute Annual User Meeting, Walnut Creek, CA.
- \*contributed equally*
- 2017 Tolar, B. B., **L. Reji**, J. M. Smith, F. P. Chavez, and C. A. Francis. Spatiotemporal Community Dynamics of Nitrogen-Cycling Archaea and Bacteria in Monterey Bay, CA (Oral Presentation). Association for the Sciences of Limnology and Oceanography 2017 Aquatic Sciences Meeting, Honolulu, HI.
- 2016 **Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Thaumarchaeal *amoA* and *nirK* Gene Abundance Patterns Reveal Spatiotemporal Dynamics of Ammonia-oxidizing Archaeal Populations in Monterey Bay, CA (Poster). American Geophysical Union 2016 Fall Meeting, San Francisco, CA.
- 2016 **Reji, L.**, B. B. Tolar, J. M. Smith, and F. P. Chavez, C. A. Francis. Thaumarchaeal *nirK* Abundance Patterns Reveal Spatio-temporal Dynamics of Coastal-Ocean Ammonia-oxidizing Archaeal Populations (Poster). Annual Research Review, School of Earth Sciences, Stanford University.
- 2016 **Reji, L.**, J. Damashek, J. A. Lee, C. A. Francis. Nitrite Reductase (*nirK*) as an Alternative Molecular Marker for Ammonia-oxidizing Archaea: Quantification and Characterization of Thaumarchaeal *nirK* Nitrite Reductase Genes in Estuarine Sediments from San Francisco Bay (Poster). Ocean Sciences Meeting, New Orleans.
- 2014 **Reji, L.**, J. Damashek, J. A. Lee, C. A. Francis. Diversity and Abundance of Ammonia-Oxidizing Archaeal Nitrite Reductase (*nirK*) Genes in Estuarine Sediments of San Francisco Bay (Poster). Symposium of Undergraduate Research and Public Service (SURPS -2013) and the School of Earth Sciences Annual Review at Stanford University (2014); Poster and oral presentations at the School of Earth Sciences Undergraduate Research (SESUR) symposium at Stanford University.