

Metadata compilation for a global biodiversity survey - Undergraduate research project -

Supervisor

Stilianos Louca, PhD; Assistant Professor, Biology

Project breadth

Join a team effort to compile contextual data for a global microbial diversity survey

Project background

The increasing availability of microbial DNA sequencing data presents unique opportunities for studying global biodiversity and reconstructing the evolution of microorganisms over Earth's history. Such efforts, however, are in dire need of proper metadata on the origin of DNA sequences, such as environmental conditions and geographic location of sampling, which are currently largely scattered across the scientific literature and databases. Our group has recently compiled an unprecedentedly large dataset of such sequencing data from thousands of locations around the world, including the deep ocean, lakes, hot springs, plant surfaces, soils and animal guts. We are currently recruiting volunteers to help collect and curate the much needed corresponding metadata.

Student objective

Help compile and curate environmental and geographical metadata, based on the scientific literature and national sequencing databases. The final deliverable is an excel file with the metadata collected by the student.

Potential benefits to student

- Gain experience in reading primary scientific literature
- Gain experience in organizing large amounts of scientific data
- Opportunity to be co-author on a scientific publication
- Research credit
- Super flexible work schedule, work-from-home if desired

Prerequisites and commitments

- Basic experience in Excel or similar spreadsheet software
- Basic experience in reading scientific papers (preferably biology or related field)
- Basic interest in ecology or evolution
- Attention to detail and scientific rigor
- Professionalism and scientific integrity

Application procedure

Contact Stilianos Louca by email (contact details at www.loucalab.com). Please include a CV and any relevant prior work/research experience.