

YALE UNIVERSITY

Center for Biodiversity and Global Change

Max Planck - Yale Center for Biodiversity Movement and Global Change

Map of Life & Half-Earth Project

DATA ANALYST

Work Location

Central Yale Campus, New Haven, Connecticut, USA

Position

On-going full time staff position. Monday to Friday, 37.5 hours per week.

Work environment:

The positions will be based at Yale University, with close collaborative links to our partners worldwide. The Yale BGC Center connects biodiversity scientists from across campus and hosts a range of speaker and workshop events. It supports research and training around the use of new technologies and data flows for model-based inference and prediction of biodiversity distributions and changes at large spatial and taxonomic scales. Flagship Center projects include [Map of Life](#) and associated activities supporting the [Half-Earth Map](#) and the development of the [GEO BON Species Population Essential Biodiversity Variables](#). For animal movement data we are partnered with the [Icarus Initiative](#), a space station-based near-global GPS animal movement observation system, and [Movebank](#), which supports the management and integration of movement data. For camera trapping data we are members of the [Wildlife Insights](#) initiative. Other Center initiatives include the integration of phylogenetic information with spatial distributions (e.g., [VertLife](#)), and the NASA-supported development and application of remote sensing-informed layers for biodiversity modelling ([EarthEnv](#)).

[Yale University](#) offers researchers and staff competitive salaries and a generous package of [benefits](#). Yale has a thriving and growing community of young scholars in ecology, evolution and global change science in the [EEB Department](#), the [Yale Institute for Biospheric Studies](#), the [Peabody Museum](#), and the [School of Forestry and Environmental Studies](#). The town is renowned for its classic Ivy League setting, 75 miles north of New York City.

Position Focus

We are seeking a Data Analyst to work with our growing team of developers and scientists at Yale University in New Haven, Connecticut. This is a unique opportunity to work in a collaborative environment and dynamic team that is developing technological solutions for conservation and research. Both the Yale BGC Center and the MPY Center support research and training around the use of new technologies such as GPS tracking, machine learning, and remote sensing to address questions in ecology, behavior, and conservation.

Much of the technical development work in the Center connects to [Map of Life](#) (MOL). MOL aims to support effective and global biodiversity education, monitoring, research and decision-making by assembling and integrating a wide range of knowledge about species distributions and their dynamics over time. Built on a scalable web platform geared for large biodiversity and environmental data, MOL

provides best-possible species distribution information together with a range of data and biodiversity indicator products. These products in turn underpin analytics and mapping for the Half-Earth Project.

The ideal candidate will be comfortable with relational databases, familiar with writing efficient code and documentation, and will help build workflows for the internal team to process large data. The Data Analyst will manage and improve an existing database hosted within a PostgreSQL/PostGIS environment and work with the informatics team to build, extend, and support new data products to support global biodiversity research and conservation projects.

Responsibilities:

The Data Analyst will report to the Senior Software Engineer and other team members and participate in the organization, management, and ensuring the integrity of complex datasets. They will work collaboratively to analyze spatial data and manage a global spatial biodiversity database (>1 billion records).

Required Education and Experience:

Minimum Bachelor's degree in statistics, computer science or a related field and two years of experience in data management and analysis or equivalent combination of education and experience.

Position requirements:

- Demonstrated success working with “big data” on the order of hundreds to billions of records.
- Understanding of entity relationship diagrams (ERD) and the inherited cardinality rules of schemas/tables.
- Demonstrated record of documentation through GitHub and workflow optimization.
- Basic proficiency in Unix-based systems.
- Excellent written and oral communication skills. Demonstrated experience in conducting written and oral presentations that summarize the analysis of data, interprets the finding and provides conclusions and recommendations.
- Resourceful and able to solve problems in an organized and logical manner.
- Ability to plan, organize and manage a large volume of varied work in a complex, fast-paced environment. Ability to multi-task, prioritize, and work under pressure to meet deadlines. Ability to concentrate and perform with interruptions. Excellent time management skills. Excellent attention to detail and accuracy.
- Demonstrated experience working independently and as part of a team
- Eligible to work in the United States

Preferred skills:

- Experience with Google Cloud Platform (BigQuery, Cloud SQL, Cloud Datastore, and Cloud Storage).
- Experience working with geospatial biodiversity data.
- Experience developing geospatial applications.
- Strong technical skills and relevant experience with Python and Shell scripting.
- Experience with hosted platforms such as Google App Engine and CARTO.

To apply, please send your CV and cover letter as a pdf to jobs@mol.org, Subject “Analyst”. The position will remain open until filled.