Our goal is to accelerate the progress of the research projects we support. We ask that teams identify a point-person (can be a PI) to coordinate with us so we can best respond to project challenges as they arise. We are here to advise on statistical methods, best practices, and the mechanics of using our infrastructure. Some of the types of problems we can help you address include:

- **Data management** for combining large, heterogenous data from multiple sources (including web APIs), normalizing and organizing this data in a format suitable for analysis, including database creation and access, and data publication.
- **Statistics**, such as choosing between different analytical approaches for a given problem, dealing with high-dimensional data or data of various quality and resolution.
- **Programming** related to the implementation of a method, the adaptation of existing code to run optimally on SESYNC's computational infrastructure, and code review.
- **Visualizations** for exploratory data analysis or publication/dissemination of results.

Specific ways in which SESYNC research computing support staff have contributed their expertise to project include:

- Designing database schema for integrating ecological, management, and spatial data sets on marine protected areas;
- Providing stub code to connect R to a custom-built database of 52 million household survey records;
- Assisting with geospatial integration of 8 million census blocks and 1 billion toxic release data points;
- Integrating economic, land use, harvest, and species data to assist in valuation of ecosystem services from trees;
- Creating RShiny web applications for rapid visualization of high-dimensional datasets and interactive data maps;
- Working with researchers to plan for the long term disposition of their data and code.
- Reviewing code for R package publication on ecological community metrics to improve code clarity, readability, and efficiency.

Our model for consulting support is iterative assistance. Due to the volume of projects we support, our staff resources for any one project are limited. Therefore, we ask teams to identify a point-person (can be a PI) to coordinate with us so we can best respond to project challenges as they arise.

If you are considering applying to one of our programs or are a current participant and have questions about what we can support, please do not hesitate to contact us at cyberhelp@sesync.org [1].

Source URL: https://www.sesync.org/for-you/cyberinfrastructure/services/consulting

Links
[1] mailto:cyberhelp@sesync.org