

Interagency Ecological Program 2024 Work Plan Element Phytoplankton Enumeration Synthesis Project (PESP)

Project Manager and Affiliation

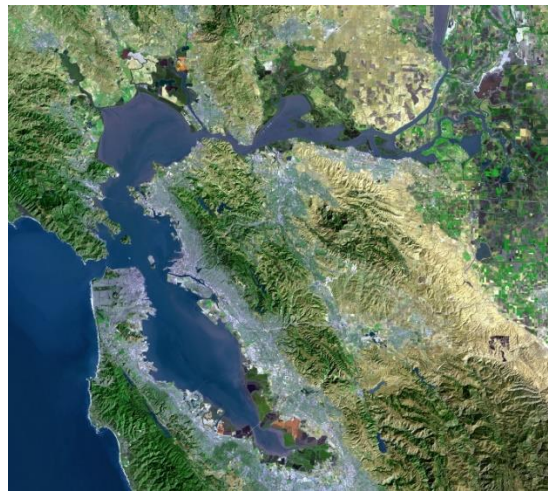
Sarah Perry, CA Department of Water Resources

Principal Investigator and Affiliation

Sarah Perry, CA Department of Water Resources

Annual Cost (thousands) and Funding Sources

\$0 (in-kind services)



Map of the San Francisco – San Joaquin Delta

Description

Phytoplankton community composition is an important driver of zooplankton productivity and food supply for higher trophic levels. However, research involving the organisms has been hindered by lack of access to existing phytoplankton datasets and a lack of a standardized way to combine and analyze them. Having datasets combined in a standardized format will lay the framework for a better understanding of productivity in the estuary

Project Need

PESP is a large-scale synthesis effort to create a standardized phytoplankton dataset for use by Delta researchers. As phytoplankton data has historically been underutilized in Delta-focused research due to the lack of an initiative like this, it is critical to the needs of the Delta research community.

Project Objectives

- Standardize taxonomy/metadata between groups for phytoplankton
- Upload individual phytoplankton datasets to open data repositories
- Create synthesized dataset of phytoplankton in the SFE
- Establish accessible options (USGS portal, R package) to view/access data

Schedule of Milestones

03/2023: Publish EMP dataset (largest, using as template)

10/2023: Publish other groups' data

12/2023: Publish synthesized dataset

02/2024: create R package

Mid 2024: integrate dataset with USGS phytoplankton portal

Project Reports and Publications

Project was initiated in 2022 and no publications as of yet. Future project reports and publications will include the following:

- Phytoplankton dataset publications from:
 - EMP (DWR)
 - Menlo Park (USGS)
 - CAWSC (USGS)
 - FRP (CDFW)
 - Delta Outflow Project (USBR/ICF)
 - Aquatic Weeds (DWR)
 - YBFMP (DWR)
 - NDFA (DWR)
 - Suisun Marsh Salinity Control Gate (DWR)
- Synthesized phytoplankton dataset publication
- Final report