overview

- The CAP LTER:
  - addresses the long-term curation and dissemination of research data with a robust Information Management System (IMS) that benefits CAP LTER investigators and the broader scientific community.
  - facilitates the ingestion of research data and metadata that are housed in the CAP LTER and Environmental Data Initiative (EDI) data repositories, providing long-term storage and access to research data.
  - The CAP LTER Information Manager and the GIOS Informatics team are available to assist with the data publishing process, developing data management plans, and to provide guidance regarding effective approaches to research data management.
- Submitting data through the CAP LTER meets data publishing requirements set by funders and publishers, and each data set is given a unique Digital Object Identifier (DOI) that a data provider may reference.

data management infrastructure and processes

The CAP LTER employs a robust internal infrastructure and system processes to facilitate resilient storage of research data and metadata. Data and metadata undergo quality control before archiving through Amazon Web Services and with the Environmental Data Initiative (EDI). Data are discoverable and available through the CAP LTER and EDI data catalogs, the latter providing a Digital Object Identifier (DOI) for data packages that can be referenced in the same manner as a manuscript. The EDI data catalog is also visible through DataONE, an aggregator of a number of diverse data repositories, which greatly enhances data discoverability.

data life cycle

GIOS infrastructure, and data resources and services help investigators to complete the data life cycle from data creation and acquisition through publication that supports data reuse.

data resources and services

- CAP LTER project data are publicly available. Resources include data from current and historic long-term monitoring programs, and investigator-provided data. Vignettes provide overviews of the long-term monitoring programs. Project data are searchable by author and keywords through the CAP LTER and EDI data catalogs.
- Data publishing services are available for all GIOS research initiatives.
- A Data Management Plan (DMP) is now required for most proposals. The GIOS Informatics team can help with boiler-plate DMP materials, and advice regarding DMP development.

acknowledgements

This material is based upon work supported by the National Science Foundation under grants DEB-1832016 and DEB-1637590. Any opinions, findings, conclusions, or recommendations expressed in the material are those of the authors(s) and do not necessarily reflect the views of the National Science Foundation.