

NOAA National Centers for Environmental Information (NCEI) Global Marine Microplastic Database Initiative

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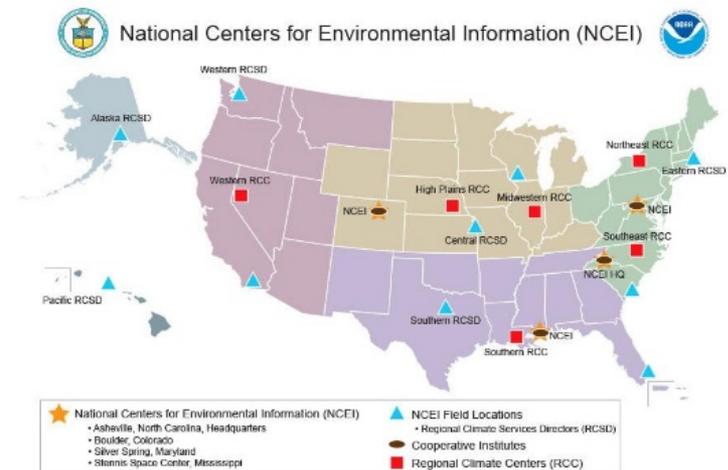
NOAA NCEI

- ***Mission statement***

- responsible for preserving, monitoring, assessing, and providing public access to the Nation's treasure of geophysical data and information

- ***Other relevant general background info***

- NCEI is the Nation's leading authority for environmental info
- NCEI has experience in providing quality environmental data
- Over 25 petabytes of comprehensive atmospheric, coastal, oceanic, and geophysical data



NOAA NCEI

- *Tiers of data stewardship*



NCEI Interests in Marine Debris

- lack of extensive database on marine microplastic
- concentrate on one specific type of marine debris - microplastics in order to establish NCEI as the primary location for data management
- collate, and provide a ***one-stop repository*** for info needed for marine debris study
- complimentary data: Global Ocean Current Database, World Ocean Database, and Surface Underway Marine Database

Activities related to Marine Debris in NOAA NCEI

- Database development: identify, acquire and upload
- Marine Debris Program and NCEI: Marine Debris Clearing house
- User engagement and information services
- Develop microplastic sensor measurement
- Provide ArcGIS visualization to facilitate data retrieval of underway microplastics sensor data

Resources/Expertise Available at NOAA NCEI

- Resources:
 - Database tools
 - Geo- database (ArcGIS)
 - IT Infrastructure: large servers and storage
- Expertise
 - Environmental data collection
 - Database development
 - Archiving
 - Transformative technologies (e.g. cloud computing, AI)

NCEI Archive Services

- Supports different data types
- Data discovery and access – advanced search and visualization tools to optimize data query
- Data Identification and Attribution – e.g. Digital Object Identifiers (DOIs)
- Data preservation

Opportunities/Needs for Interagency Collaboration

- Resources & Expertise:
 - computer resources and technology
 - database management
 - existing databases
 - easy application of GIS analysis of data
- Joint/coordinated activities:
 - data sharing
 - developing international standards for data reporting
 - database development/maintenance
 - establish contacts in the microplastics sensor community

Microplastics – Research Interests

- gather global information and create database
- transports & fate
- numerical modelling & predictions
- remote sensing

