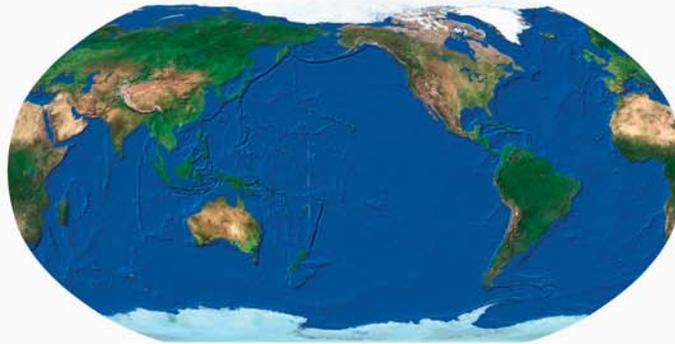


Ocean GeoPortal: An Educational and Data Harvesting Tool

A collaborative effort to build and share geospatial data and knowledge for research and education concerning our ocean planet

Daniel G. Cole
Smithsonian Institution



Three Components

Educational Materials

- Static and Interactive maps
- Links to Educational websites with Marine Content
NOAA
Marine Conservation Biology Institute
Center for Image Processing in Education
- Exercises and Virtual Field Trips

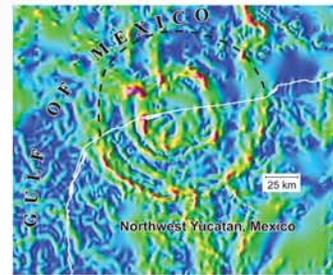
Basemaps

- Base layers (e.g., bathymetry, coastlines)
- Thematic layers (e.g., protected areas, salinity, temperature, species ranges, specimen collections)
- Free and Easy access to public datasets
- Cost-sharing and collaboration for creating or improving data
- Open publishing of layers by all groups
- Data standards for core layers
- Produce print and web atlases

Ocean Geography Portal

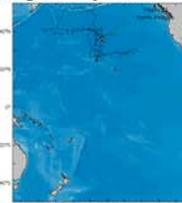
- Software components
 - GIS Portal Toolkit 9.3
 - ArcGIS Server w/ Map Viewer
 - ArcCatalog & ArcSDE with SQL Server
- Metadata Gateway to multiple sites w/ ArcIMS, FTP, Google & other spatial data
- Map Viewer
- Spatial Data Harvesting Workspace
 - Governmental agencies-GOS/OCM
 - Oceanographic Research Institutes
 - Sea Grant Colleges
 - Non-governmental organizations
- Find, download, review, evaluate, and publish data, tools and maps
- Make maps by combining map services
- Compare global data to regional studies

Examples of Content



Asteroid Impact location

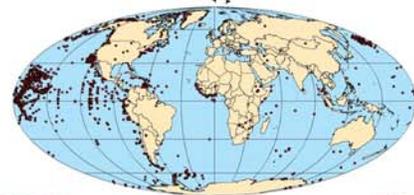
NOAA: Tagging of Pacific Pelagics: Laysan Albatross



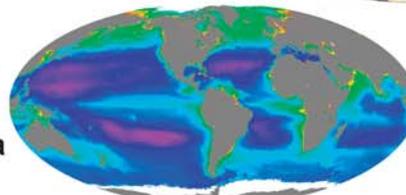
US F&WS: North Pacific Seabird Colony Database



Interactive mapping with different spatial data sources



Smithsonian NMNH: Marine Bird Collections Database (EMu)



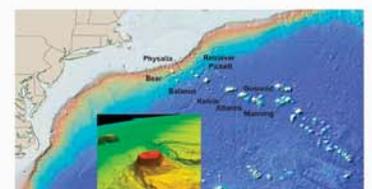
Chlorophyll (mg/m³)
NASA GSFC
Summer 1998-2006



Dead Zones
Virginia Maritime Institute



Island Forming Volcanoes
NMNH Global Volcanism Program



New England Seamount Chain with Bear Seamount
Columbia Univ. and University of New Hampshire