# Resource Summary Report

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## Marine Geoscience Data System

RRID:SCR_002164
Type: Tool

### Proper Citation

Marine Geoscience Data System (RRID:SCR_002164)

### Resource Information

**URL:** http://www.marine-geo.org/

**Proper Citation:** Marine Geoscience Data System (RRID:SCR_002164)

**Description:** Repository providing free access to marine geophysical data (e.g. bathymetry, seismic data, magnetics, gravity, images) and related land-based data from NSF-funded research conducted throughout the global oceans. Data Portals include GeoPRISMS, MARGINS, Ridge 2000, Antarctic and Southern Ocean Data Synthesis, the Global Multi-Resolution Topography Synthesis, and Seismic Reflection Field Data Portal. Primary data types served are multibeam bathymetric data from the ocean floor, seismic reflection data imaging below the seafloor, and multi-disciplinary ship based data from the Southern Ocean. Other holdings include deep-sea photographic transects, and ultra-high resolution bathymetry, temperature probe data, biological species compilations, MAPR and CTD data. Derived data products and sets include microseismicity catalogs, images, visualization scenes, magnetic and gravity compilations, grids of seismic layer thickness, velocity models, GIS project files, and 3D visualizations. Tools to discover, explore, and visualize data are available. They deliver catalogs, maps, and data through standard programmatic interfaces. GeoMapApp, a standalone data visualization and analysis tool, permits dynamic data exploration from a map interface and the capability to generate and download custom grids and maps and other data. Through GeoMapApp, users can access data hosted at the MGDS, at other data repositories, and import their own data sets. Global Multi-Resolution Topography (GMRT) is a continuously-updated compilation of seafloor bathymetry integrated with global land topography. It can be used to create maps and grids and it can be accessed through several standard programmatic interfaces including GeoMapApp and Google Earth. The GMRT compilation can also be explored in 3D using Virtual Ocean. The MGDS MediaBank contains high quality images, illustrations, animations and video clips that are organized into galleries. Media can be sorted by category, and keyword and map-based search options are provided. Each item in the MediaBank is accompanied by metadata that provides access to a cruise catalog and data repository.

**Abbreviations:** MGDS

**Resource Type:** storage service resource, data repository, service resource

**Keywords:** observation, solid earth, ocean, earth, polar sciences, marine, geophysical, bathymetry, seismic, magnetics, gravity, image, geology, bathymetric map, topographic map, mid-ocean ridge, submarine topography, continental margin, continental shelf, continental slope, expedition, catalog, web service, dynamic map

**Funding:** NSF

**Availability:** Creative Commons Attribution-NonCommercial-ShareAlike License, v3, The community can contribute to this resource

**Resource Name:** Marine Geoscience Data System

**Resource ID:** SCR_002164

**Alternate IDs:** nlx_154713, DOI:10.26022/

**Alternate URLs:** https://doi.org/10.26022/, https://dx.doi.org/10.26022/

**Record Creation Time:** 20220129T080211+0000

**Record Last Update:** 20250429T054716+0000

## Ratings and Alerts

No rating or validation information has been found for Marine Geoscience Data System.

No alerts have been found for Marine Geoscience Data System.

## Data and Source Information

**Source:** SciCrunch Registry

## Usage and Citation Metrics

We found 12 mentions in open access literature.

**Listed below are recent publications.** The full list is available at NIF.

Baldry K, et al. (2024) A biological ocean data reformatting effort. Scientific data, 11(1), 215.

Peña-Salinas ME, et al. (2024) Thermotogota diversity and distribution patterns revealed in Auka and JaichMaa 'ja 'ag hydrothermal vent fields in the Pescadero Basin, Gulf of California. PeerJ, 12, e17724.

Philip BT, et al. (2023) Fluid sources and overpressures within the central Cascadia Subduction Zone revealed by a warm, high-flux seafloor seep. Science advances, 9(4), eadd6688.

Friedlander AM, et al. (2021) Deep-sea biodiversity at the extremes of the Salas y Gómez and Nazca ridges with implications for conservation. PloS one, 16(6), e0253213.

El Khrepy S, et al. (2021) Transition from continental rifting to oceanic spreading in the northern Red Sea area. Scientific reports, 11(1), 5594.

Koulakov I, et al. (2021) Anatomy of the Bezymianny volcano merely before an explosive eruption on 20.12.2017. Scientific reports, 11(1), 1758.

Nock K, et al. (2019) Applying single-image super-resolution to enhancment of deep-water bathymetry. Heliyon, 5(10), e02570.

Meyer-Dombard DR, et al. (2019) The Effect of a Tropical Climate on Available Nutrient Resources to Springs in Ophiolite-Hosted, Deep Biosphere Ecosystems in the Philippines.

Frontiers in microbiology, 10, 761.

Greenwood SL, et al. (2018) Holocene reconfiguration and readvance of the East Antarctic Ice Sheet. Nature communications, 9(1), 3176.

Ibáñez JM, et al. (2017) Database of multi-parametric geophysical data from the TOMO-DEC experiment on Deception Island, Antarctica. Scientific data, 4, 170128.

Georgieva MN, et al. (2015) Mineralization of Alvinella polychaete tubes at hydrothermal vents. Geobiology, 13(2), 152.

Cardace D, et al. (2015) Feasible metabolisms in high pH springs of the Philippines. Frontiers in microbiology, 6, 10.