

URL Database system addresses:

- **Arctic Ocean Diversity Project (ArcOD) Data:** An international collaborative effort to inventory biodiversity in the Arctic sea ice, water column and sea floor from the shallow shelves to the deep basins using a three-step approach: compilation of existing data (sea ice algae, phytoplankton, zooplankton, zoobenthos, fish and birds), taxonomic identification of existing samples, and new collections focusing on taxonomic and regional gaps. - www.coml.org/descrip/aobio (See page 1 of report on Data Centers Description for more information)
- **British Oceanographic Data Centre (BODC):** the UK National Oceanographic Data Centre in the IODE network and the Natural Environment Research Council's designated data centre for marine data. - www.bodc.ac.uk (See report on Data Centers Description, page 2, for more information)
- **ChEssBase:** a web-based relational database integrated with OBIS (listed below). The aim is to provide taxonomical, biological, ecological and distributional data of all species described from deep-water chemosynthetic ecosystems, as well as bibliography and information on the habitats. These habitats include hydrothermal vents, cold seeps, whale falls, sunken wood and areas of minimum oxygen that intersect with the continental margin or seamounts. Sample data are also about to be added to the database - www.noc.soton.ac.uk/chess/ (See page 3 of report on Data Centers Description for more information, and presentation "ChEssBase_Ramirez_2007.ppt")
- **CODATA:** Committee on Data for Science and Technology of the International Council for Science (office based in Paris, France) - www.codata.org (See presentation 'CODATA_B Chen.ppt')
- **EarthChem:** data infrastructure for geochemistry, NSF-funded; data archives hosted by the Geoinformatics for Geochemistry program; portal services to international federation of geochemical databases - www.earthchem.org (See presentation "KLehnert_sedDB_Kiel2007.ppt")
- **Earthquake Research Center (EQRC), Iran:** management of seismological data generated by the Khorasan Seismic Network (8 stations in the Khorasan provinces, Iran), operated by Ferdowsi University - *Website missing* (See report on Data Centers Description, page 4, for more information).
- **General Bathymetric Chart of the Oceans (GEBCO):** global ocean floor bathymetric data sets, operated under the auspices of the International Hydrographic Organization (IHO) and the Intergovernmental Oceanographic Commission (IOC) - www.gebco.net (See report on Data Centers Description, page 5, for more information).
- **GeoForschungsZentrum Potsdam, Germany:** provides data management for several international projects in earth science, such as the International Scientific Drilling Program, data from CHAMP and GRACE satellite missions, the GEOFON seismological network and other sensor networks and geophysical observations (e.g., GPS, geomagnetic and tide gauges and the German Indonesian Tsunami Early Warning System) - www.gfz-potsdam.de (See report on Data Centers Description, page 6-7, for more information).
- **Geoinformatics for Geochemistry:** NSF-funded program at the Lamont-Doherty Earth Observatory and the Center for International Earth Science Information Network CIESIN to operate geochemical and sample data collections PetDB (Petrological Database of the Ocean Floor - www.petdb.org), SedDB (Information

System for Marine Sediment Geochemistry – www.seddb.org), EarthChem (see above), and SESAR (see below)

- **GEO (Group on Earth Observations):** An intergovernmental group leading a worldwide effort to build a Global Earth Observation System of Systems (GEOSS) over the next 10 years. GEO is established on a voluntary and legally non-binding basis, with voluntary contributions to support activities, currently with 69 member countries, the European Commission and 46 participating organizations - www.earthobservations.org (See presentation GEO_WDCdatadrivenscience.ppt)
- **GEOROC (Geochemistry of Rocks of the Oceans and Continents) Database:** an online resource hosted by the Max-Planck-Institut fuer Chemie in Mainz, providing published geochemical data from volcanic rock samples, glasses, minerals and inclusions from ocean islands and several other active and passive tectonic regions. Since 2003, GEOROC joined with PetDB and NAVDAT databases to form the EarthChem consortium (described in this list) - georoc.mpch-mainz.gwdg.de (See page 10 of report on Data Centers Description for more information)
- **GEOREM (Geological and Environmental Reference Materials) Database:** an online resource hosted by the Max-Planck-Institut fuer Chemie in Mainz, providing reference materials and isotopic standards from samples of rock powder, glasses, minerals, isotopes, river water and seawater – georem.mpch-mainz.gwdg.de (See page 10 of report on Data Centers Description for more information).
- **GNS, New Zealand:** GNS Science collects geological, geochemical & geophysical information from around the New Zealand region - www.gns.cri.nz (See page 11 of report on Data Centers Description for more information and presentation MARGINS Data at GNS Science.ppt)
- **International Federation of Digital Seismographic Networks (FDSN) -** www.fdsn.org/ (presentation FDSN_Ahern.Margins.ppt)
- **IRIS Data Management Center (DMC):** of global (and beyond) time series data, an NSF-funded program to manage time series generated by the IRIS Global Seismic Network, the Program for Array Seismic Studies of the Continental Lithosphere (PASSCAL) and other seismological data. In addition, approximately 24 other kinds of time series data are available from globally distributed sensors, such as weather, hydrologic, gravimetric and magnetotelluric data – www.iris.edu (See report on Data Centers Description, pages 16-17, for more information).
- **JAMSTEC (Japan Agency for Marine-Earth Science and Technology) Database:** Access to 19 data portals from JAMSTEC database page, such as observation data (e.g., ROVs, submersibles, mooring sites, cable stations and buoys), numerical model output, samples, etc - <http://www.jamstec.go.jp/e/database/> (presentation JAMSTEC DataSites.ppt) (See page 12-13 of report on Data Centers Description for more information on seismograph/geomagnetic stations network, and page 14 for data sites general).
- **MARGINS Data System:** a multiple-data file repository, access tools and web services for data collected in studies funded under the US MARGINS programs. - www.marine-geo.org/margins (See page 25 of report on Data Centers Description for more information and presentation MGDS_W Ryan_Kiel.ppt)
- **Marine Geoscience Data System:** NSF-funded program at the Lamont-Doherty Earth Observatory of Columbia University composed of the [Ridge 2000](#) and [MARGINS](#) Data Systems, the [Antarctic](#) and [Ridge Multibeam Bathymetry Synthesis](#) projects, and the [Seismic Reflection Field Data Center](#) - www.marine-geo.org (See page 25 of report on Data Centers Description for more information)

- **Marine Metadata Interoperability Project (MMI):** promoting the exchange, integration and use of marine data through enhanced data publishing, discovery, documentation and accessibility - <http://marinemetadata.org/> (presentations: MetaData5_Graybeal_MBARI.pdf and Graybeal_Ontologies.pdf)
- **Marine Seismic Data Center (MSDC):** free access to seismic images and data for education and research, hosted by Jackson School of Geosciences, University of Texas at Austin in collaboration with the Field data center from MGDS (Lamont D.E.O.) - www.ig.utexas.edu/sdc and www.marine-geo.org/seismic/ (See page 18 of report on Data Centers Description and presentation UTIG_TShipleY_kiel.ppt)
- **National Geophysical Data Center (NGDC), U.S.:** supported by the U.S. Department of Commerce, National Oceanic & Atmospheric Administration. Provides scientific stewardship for data from the ocean floor (coastal and open ocean areas), and for data related to natural hazards including tsunamis - www.ngdc.noaa.gov/ (See page 19 of report on Data Centers Description for more information and presentation NGDC_USA_CFox.ppt)
- **National Oceanographic Data Center, Oceanographic Institute of Ecuador:** maintains a 50-year database of continuous oceanic, coastal and atmospheric data collections from cruises, permanent meteorological stations and other observatories along the Ecuadorian coast and Galapagos Island, supporting also the Central-South American ODINCARSA project - www.odincarsa.net and www.inocar.mil.ec (See page 20 of report on Data Centers Description for more information and presentation odincarsa-IODE_XIX_March_2007 2.ppt)
- **National Research Institute for Earth Science and Disaster Prevention (NIED, Japan):** Seismograph Networks in Japan - Registration required: www.hinet.bosai.go.jp/register/ENGLISH/ (See presentation 'shiomi_NIED.ppt' and page 22 of report on Data Centers Description for more information)
- **Nautilus, the IFREMER Web portal:** gives access to multidisciplinary in situ datasets of: chemistry, physical oceanography and geophysics, and is being widened to new types of data such as from geology - www.ifremer.fr/nautilus (See page 15 of report on Data Centers Description and presentation Ifremer_portal_Kiel_2007_def.ppt)
- **NEPTUNE, Canada (THE NORTH-EAST PACIFIC TIME-SERIES UNDERSEA NETWORKED EXPERIMENTS):** an 800 km ring powered fiber optic cabled observatory on the seabed over the northern part of the Juan de Fuca tectonic plate, a 200,000 sq km region in the northeast Pacific off the coasts of British Columbia, Washington and Oregon, operated by Univ. of Victoria, nodes and instruments ready by 2008. - www.neptunecanada.ca (See presentation 'NEPTUNE_Canada.ppt' and page 21 of report on Data Centers Description for more information)
- **Network of Expertise in Long-Term Storage of Digital Resources (NESTOR):** The project's objective is to create a network of expertise in long-term storage of digital resources for Germany. As the perspective of current and future archive users is central to the project, the emphasis is put on long-term accessibility - <http://www.langzeitarchivierung.de/index.php?newlang=eng>
- **OBIS (Ocean Biogeographic Information System):** A web-based provider of global geo-referenced information on marine species. Contains expert species level and habitat level databases and provides a variety of spatial query tools for visualizing relationships among species and their environment. OBIS strives to

assess and integrate biological, physical, and chemical oceanographic data from multiple sources - www.iobis.org

- **Ocean Data Bank, National Center for Ocean Research (ODB, NCOR), Taiwan:** limited access for the purpose of academic research to a variety of geophysical and hydrographic data, some of them in development - <http://www.ncor.ntu.edu/ODBS/> (See page 23 of report on Data Centers Description for more information)
- **OceanLife Project:** a testbed collaboration underway between Rutgers University Marine Lab and San Diego Supercomputer Center designed to assist marine scientists to integrate biological and physical oceanographic data, dealing with datasets such as the World Ocean Atlas - scirad.sdsc.edu/datatech/aqp_ocean.html (See page 24 of report on Data Centers Description for more information).
- **PANGAEA (Publishing Network for Geoscientific & Environmental Data):** Public library for dissemination of data and metadata via portal networks using georeferenced data related to basic research on earth & environment. Operated by AWI and MARUM, Germany - www.pangaea.de (presentation WDC-MARE_PANGAEA.ppt)
- **Publication and Citation of Scientific Primary Data (STD-DOI):** a project funded by the German Science Foundation. Its aim is to make primary scientific data citable as publications. In this system, a data set would be attributed to its investigators as authors like it would be done for a work in the conventional scientific literature - <http://www.std-doi.de/>
- **Ridge2000 Data System:** a multiple-data file repository, access tools and web services for data collected in studies funded under the US Ridge2000 program. - www.marine-geo.org/ridge2000 (See page 25 of report on Data Centers Description for more information ad presentation MGDS_W Ryan_Kiel.ppt)
- **SDDB (Scientific Drilling DataBase) of the International Scientific Continental Drilling Program (ICDP):** holds Deep Earth Sampling and Monitoring data from ICDP operations (www.icdp-online.org/) and associated projects, and publishes datasets through the STD-DIO system. It is operated by GeoForschungsZentrum Data Centre and by the ICDP's Operational Support Group (OSG) - <http://www.scientificdrilling.org/>
- **SeaDataNet:** a Pan-European Infrastructure for Ocean and Marine Data Management, undertaken by the National Oceanographic Data Centres (NODCs). Data types comprise in-situ and remote sensing, metadata and data products from the disciplines of physical oceanography, marine chemistry and geology, bathymetry and marine biology - www.seadatanet.org (See page 27-28 of report on Data Centers Description for more information and presentation Schaap_seadatanet-margins.ppt)
- **SeaDog (Stewardship of Deep Ocean Geophysical):** database available per request at <http://www.noc.soton.ac.uk/cgi-bin/seadog/seadog.pl> and **RODIN (Repository of Oceanographic Data and Information at NOCS –National Oceanographic Center Southampton)** at <http://www.noc.soton.ac.uk/meta> as its portal to aid the integration of the UK Natural Environment Research Council (**NERC**) **data grid** - <http://ndg.badc.rl.ac.uk> (See page 29 of report on Data Centers Description for more information and presentation Seadog kiel07.ppt).
- **SEDIS (Scientific Earth Drilling Information Service):** A web based information system in development by the Integrated Ocean Drilling Program (IODP), to facilitate access to all data and information related to scientific ocean drilling, regardless of

origin or location of data. SEDIS will be designed to integrate distributed scientific drilling data via metadata. - <http://sedis.iodp.org/> (See page 30 of report on Data Centers Description for more information and presentation 'miville_IODP.ppt')

- **SESAR (System for Earth Sample Registration):** Registry for Earth samples, generates and administers the International Geo Sample Number IGSN as a global unique identifier for GeoObjects (holes, cores, dredges, rock samples, etc.) – www.geosamples.org (presentation KLehnert_sedDB_Kiel2007.ppt)
- **SIOExplorer Digital Library Project:** Web-accessible data, documents and images from 822 expeditions by the Scripps Institution of Oceanography (SIO) since 1903, and will become part of the overall NSF-funded National Science Digital Library (NSDL). The effort is a collaboration between Scripps, the San Diego Supercomputer Center (SDSC) and the UCSD Library - SIOExplorer.ucsd.edu (See page 31 of report on Data Centers Description and presentation Miller_SIO.ppt)
- **Site Survey Data Bank (SSDB):** to support the review of IODP ocean drilling proposals, worldwide (e.g., backscatter, documents, electromagnetics, fluid flux, navigation, seafloor imagery, seismic, etc.), at the Geological Data Center, Scripps Inst. Of Oceanography, La Jolla, CA – ssdb.iodp.org (See page 32 of report on Data Centers Description for more information).
- **SNAP (Seismic database Network Access Point), Istituto nazionale di Oceanografia e di Geofisica Sperimentale:** is a web content manager devoted to seismic data handling and is currently used within several International Initiatives such as the SCAR-SDLS (Seismic Data Library System), the ECORD (European Consortium for Ocean Research Drilling), the EU project CO2GeoNet and the internal OGS seismic data access facility - <http://snap.ogs.trieste.it> (See page 33 of report on Data Centers Description for more information and presentation DiviAacco_SDNAP.ppt)
- **STD-DOI:** Homepage of the project "Publication and Citation of Scientific Primary Data" - www.std-doi.de
- **Stratigraphy Net's (Snet) Connotea library :** a core discipline of the geological sciences. Since stratigraphy is an interdisciplinary approach to geology, Stratigraphy.net strives to provide a forum to discuss and share latest developments and ideas in various branches of stratigraphy - <http://www.connotea.org/wiki/Group:Stratigraphy%20Net>
- **TaxonConcept Biostratigraphy Database:** as part of Snet, an open web based system to store and retrieve taxonomic data with special emphasis on the creation of online taxonomic dictionaries and fossilum catalogues style - <http://taxonconcept.stratigraphy.net/>
- **UNEP Shelf Programme, a One Stop Data Shop (OSDS):** for use by coastal states preparing submissions for an extended continental shelf beyond 200 nautical miles. The OSDS was developed in response to a United Nations resolution that: "Calls upon the United Nations Environment Programme, working within the Global Resource Information Database (GRID) system for data and information management - <http://www.continentalshelf.org/> (For more information, see report on Data Centers Description, page 4, and presentation 'Y Beaudoin_UNEP.ppt')
- **World Data Center for Marine Environmental Sciences (WDC-MARE):** aimed at collecting, scrutinizing, and disseminating data related to Global Change in the fields of environmental oceanography, marine geology, paleoceanography, and marine

biology, using the PANGAEA information system. Maintained by AWI and MARUM, Germany. – www.wdc-mare.org (presentation WDC-MARE_PANGAEA.ppt)

- **World Data Center (WDC):** operated under the guidance of the International Council for Science (ICSU), originally planned to manage geophysical and solar data on a global scale, now data sets are broadly environmental (e.g., soils, paleoclimate, land processes) supported by host institutions (51 centers in 12 countries) - www.ngdc.noaa.gov/wdc/ (presentation WDC-Fox-2007.ppt)