The Seamount Catalog in EarthRef.org

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Seamounts are important to research and education in many scientific fields, providing a wide range of data on physical, chemical, biological and geological processes. In order to make a diverse set of seamount data accessible we have developed the Seamount Catalog in EarthRef.org, available through

http://earthref.org/databases/SC/

The primary goal of the Seamount Catalog is to provide access to digital data files on a large assortment of interdisciplinary seamount research. The catalog can be searched at a variety of ability or expert levels allowing it to be used from basic education to advanced research.

Each seamount is described in terms of its location, height, volume, elongation, azimuth, irregularity, rifts, morphological classification and relation to other features. GEBCO (General Bathymetric Chart of the Ocean) gazetteer data (2002; 2003) is included in the database in order to provide information on the history, discovery and names of the seamounts. Screen-optimized bathymetry maps, grid files and the original multibeam data files are available for online viewing with higher resolution downloadable versions (AI, PS, PDF) also offered. The data files for each seamount include a map made from the multibeam data only, a map made from Smith and Sandwell's (1996) predicted bathymetry, a merged map incorporating both data sets, and a map showing the differences between the two data sets.

We are working towards expanding the Seamount Catalog by integrating bathymetry data from various sources, developing and linking disciplinary reference models, and integrating information from multiple disciplines and from the literature. We hope to create a data integrative environment that provides access to seamount data and the tools needed for working with that data.