

e-Atlas Metadata Template

The template provided below is a summary of the key information required by the e-Atlas in order for the ISO19115 MCP standard records to be created. To create a new meta-data record replacing the Description field with the appropriate content and remove optional fields that are unused. Non-optional fields correspond to the ANZLIC Minimum fields.

Field	Description
Title	A bathymetric Digital Elevation Model (DEM) of the George V and Terre Adelie continental shelf and margin
Metadata Identifier	40c70126-6983-472b-de68-168ecab118c1
Parent Record Identifier	NA
Topic Category	ELEVATION: height above or below sea level. GEOSCIENTIFIC INFORMATION: earth sciences. OCEANS: features and characteristics of salt water bodies excluding inland waters.
Keywords	bathymetry, soundings, echo sounders, multibeam sonar, Antarctica
Key Dates	CREATED: V1 - 25th Nov 2008 PUBLISHED: V1 - 25th Nov 2008 UPDATED: V2 - 16th Jul 2010 UPDATED: V3 - 11th May 2011
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Abstract	This dataset comprises Digital Elevation Models (DEMs) of varying

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	<p>resolutions for the George V and Terre Adelie continental margin, derived by incorporating all available singlebeam and multibeam point depth data into ESRI ArcGIS grids. The purpose was to provide revised DEMs for Census of Antarctic Marine Life (CAML) researchers who required accurate, high-resolution depth models for correlating seabed biota data against the physical environment. The DEM processing method utilised all individual multibeam and singlebeam depth points converted to geographic xyz (long/lat/depth) ASCII files. In addition, an ArcGIS line shapefile of the East Antarctic coastline showing the grounding lines of coastal glaciers and floating ice shelves, was converted to a xyz ASCII file with 0 m as the depth value. Land elevation data utilised the Radarsat Antarctic Mapping Project (RAMP) 200 m DEM data converted to xyz ASCII data. All depth, land and coastline ASCII files were input to Fledermaus 3DEditor visualisation software for removal of noisy data. The cleaned point data were then binned into a gridded surface using Fledermaus DMagic software, resulting in a 0.001-arcdegree (~100 m) resolution DEM with holes where no input data exists. ArcGIS Topogrid software was used to interpolate across the holes to output a full-coverage DEM. ArcGIS was used to produce the additional 0.0025-arcdegree (~250 m) and 0.005-arcdegree (~500 m) resolution grids. Full processing details can be viewed in: Beaman, R.J., O'Brien, P.E., Post, A.L., De Santis, L., 2011. A new high-resolution bathymetry model for the Terre Adelie and George V continental margin, East Antarctica. Antarctic Science 23(1), 95-103. doi:10.1017/S095410201000074X</p>
<p>Purpose</p>	<p>The purpose was to provide revised DEMs for Census of Antarctic Marine Life (CAML) researchers who required accurate, high-resolution depth models for correlating seabed biota data against the physical environment. A full description of the purpose is available at: http://www.deeppref.org/publications/peer-review/82-gvDEM.html</p>
<p>Data limitations* (optional)</p>	<p>AUSTRALIAN HYDROGRAPHIC SERVICE NOTICE: Not to be used for navigation. Certain material in this product are reproduced under licence by permission of The Australian Hydrographic Service © Commonwealth of Australia 2010. All rights reserved. This information may not be copied, reproduced, translated, or reduced to any electronic medium or machine readable form, in whole or part, without the prior written consent of the Australian Hydrographic Service.</p> <p>GEOSCIENCE AUSTRALIA NOTICE: This DEM incorporates data which are © Commonwealth of Australia (Geoscience Australia) 2010. The</p>

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	<p>Commonwealth gives no warranty regarding the data's accuracy, completeness, currency or suitability for any particular purpose.</p> <p>This dataset has been compiled from a wide range of data sources of varying resolution and accuracy.</p> <p>USE CONSTRAINTS: Users of the gvdem grid must include the following references in any subsequent publications using this dataset:</p> <p style="padding-left: 40px;">De Santis, L., Brancolini, G., Accettella, D., Cova, A., Caburlotto, A., Donda, F., Pelos, C., Zgur, F., Presti, M., 2007. New insights into submarine geomorphology and depositional processes along the George V Land continental slope and upper rise (East Antarctica). In: A.K. Cooper and C.R. Raymond (Editors), 10th International Symposium on Antarctic Earth Sciences, August 26-31 2007. Scientific Committee on Antarctic Research, Santa Barbara, U.S.A., pp. 1-5.</p> <p style="padding-left: 40px;">Beaman, R.J., O'Brien, P.E., Post, A.L., De Santis, L., 2011. A new high-resolution bathymetry model for the Terre Adelie and George V continental margin, East Antarctica. Antarctic Science 23(1), 95-103. doi:10.1017/S095410201000074X</p>
Preview Image * (optional)	NA
Data lineage (optional)	See accompanying report
Data file description* (optional)	<p>FILE: gvdem100v3.aux</p> <p>PROJECTION: Geographic Latitude/Longitude</p> <p>DATUM: WGS84</p> <p>SCALE: 0.001*0.001 arc-degree (about 100 m) grid cells</p> <p>STORED DATA FORMAT: ARC/INFO raster grid</p> <p>AVAILABLE DATA FORMATS: GeoTiff/netCDF/GMT/GoogleEarthKMZ</p>
Spatial Extent	<p>NORTH LATITUDE: -63.0</p> <p>SOUTH LATITUDE: -69.0</p> <p>WEST LONGITUDE: 138.0</p> <p>EAST LONGITUDE: 148.0</p> <p>HORIZONTAL DATUM: WGS84</p>
Temporal Extent	NA
Vertical extent (optional)	<p>MINIMUM HEIGHT: -4085 m</p> <p>MAXIMUM HEIGHT: 2390 m</p> <p>VERTICAL DATUM: MSL</p>
Maintenance and Update Frequency (optional)	<p>STATUS: Ongoing</p> <p>FREQUENCY: As required</p>
Resource Constraints and licensing	<p>COPYRIGHT: The content on this website is released under the Creative Commons Attribution 3.0 Australia Licence:</p> <p>http://creativecommons.org/licenses/by/3.0/au/deed.en</p>

Field	Description
	ATtribution: "© www.deepreef.org"
Processing*	See accompanying publication at: http://www.deepreef.org/publications/peer-review/82-gvdem.html
References	REFERENCE: Beaman, R.J., O'Brien, P.E., Post, A.L., De Santis, L., 2011. A new high-resolution bathymetry model for the Terre Adelie and George V continental margin, East Antarctica. Antarctic Science 23(1), 95-103. doi:10.1017/S095410201000074X. Available at: http://www.deepreef.org/publications/peer-review/82-gvdem.html
Credits and funding*	CREDITS: We thank the numerous agencies responsible for collecting the source bathymetry data over many years, in particular the Service Hydrographique et Oceanographique de la Marine, National Science Foundation, Programma Nazionale di Ricerche in Antartide, and Australian Antarctic Division. Mike Sexton at Geoscience Australia provided much assistance in compiling the various datasets for this project. FUNDING: Queensland Government Smart Futures Fellowship Reef and Rainforest Research Centre James Cook University
Supplemental information	NA
Online resources	The data may be downloaded from the Deepreef Explorer site: http://www.deepreef.org/bathymetry/81-gvdem-bathy.html , and within the CAASM website: http://gcmd.nasa.gov/KeywordSearch/Metadata.do?Portal=amd_au&OrigMetadataNode=AADC&EntryId=GVdem_2008&MetadataView=Full

* This is a non-standard field that will be used by the e-Atlas team in managing the data. It will be made available through the meta-data record as a linked document.



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