Title	Seabed Landforms Classification Toolset
Abstract	The Seabed Landform Classification Toolset is a GIS toolbox designed to classify seabed landforms on continental and island shelf settings. The user is guided through a series of classification steps within an ArcGIS toolbox to classify prominent seabed features termed 'seabed landforms', which characterise the morphology of the seabed surface. Seabed landforms include reefs/banks, peaks, plains, scarps, channels and depressions. Plain areas can additionally be classified into high and low features at localised and broad scales to capture features within plain surfaces. Common variables for seabed classification are utilised, including slope, bathymetric position index and ruggedness, and a series of procedures are applied to identify reef outcrops and minimise noise. The classification approach applies a whole- seascape classification which is aimed to offer a flexible and user-friendly approach to extract key seabed features from high-resolution shelf bathymetry data.
	This toolset was developed using ESRI ArcGIS Desktop 10.8 and requires an Advanced licence with Spatial Analyst and 3D Analyst and extensions. It utilises scripts within the Benthic Terrain Modeler toolset (Walbridge et al. 2018) and Geomorphometry and Gradients Metrics Toolbox (Evans et al., 2014).
	Please read the User Guide and supporting documentation for information on how to run the toolset. A web explainer is available at: $https://arcg.is/1Tqmv50$
	The Seabed Landform Classification Toolset is also available for download on GitHub (<u>https://github.com/LinklaterM/Seabed-Landforms-Classification-Toolset</u> /).
	The toolset was developed by the Coastal and Marine Team, NSW Department of Climate Change, Energy, the Environment and Water (formerly NSW Department of Planning and Environment), funded by NSW Climate Change Fund through the Coastal Management Funding Package and the Marine Estate Management Authority.
	Please cite this toolset as: Linklater, M, Morris, B.D. and Hanslow, D.J. (2023) Classification of seabed landforms on continental and island shelves. Frontiers of Marine Science, 10, <u>https://doi.org/10.3389/fmars.2023.1258556</u> .
	Other toolsets utilised by the Seabed Landform Classification Toolset include: Benthic Terrain Modeler: Walbridge, S., Slocum, N., Pobuda, M., and Wright, D. J. (2018). Unified geomorphological analysis workflows with Benthic Terrain Modeler. Geosciences 8, 94. Geomorphometry and Gradients Metrics Toolbox: Evans, J., Oakleaf, J., and Cushman, S. (2014). An ArcGIS Toolbox for Surface Gradient and Geomorphometric Modeling, Version 2.0-0. <u>https://github.com/jeffreyevans/GradientMetrics</u> .
Resource locato)r
Data Quality	Name: Data Quality Statement
<u>Statement</u>	Protocol: WWW:DOWNLOAD-1.0-httpdownload
	Description:
	Data quality statement for Seabed Landforms Classification Toolset
	Function: download
Seabed	Name: Seabed Landforms Classification Toolbox
<u>Landforms</u> <u>Classification</u>	Protocol: WWW:DOWNLOAD-1.0-httpdownload
<u>Toolbox</u>	Description:
	Seabed Landforms Classification Toolbox - ArcGIS Toolbox. This toolset was developed using ESRI ArcGIS Desktop 10.8 and requires an Advanced licence with Spatial Analyst and 3D Analyst and extensions. It utilises scripts within the Benthic Terrain Modeler toolset (Walbridge et al. 2018) and Geomorphometry and Gradients Metrics Toolbox (Evans et a., 2014). Please read the User Guide and supporting documentation for information on how to run the toolset. A web explainer is available at: <u>https://arcg.is/1Tqmv50</u> .
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	Cushman, S. (2014). An ArcGIS Toolbox for Surface Gradient and Geomorphometric Modeling, Version 2.0-0. <u>https://github.com/jeffreyevans/GradientMetrics</u> . Function: download
Unique resource	identifier
Code	183a149b-1b19-4b48-8ee5-6d29589ff3ef
Presentation form	Model digital
Edition	1
Dataset language	English
Metadata standard	
Name	ISO 19115
Edition	2016
Dataset URI	https://www.planningportal.nsw.gov.au/opendata/dataset/183a149b-1b19-4b48-8ee5- 6d29589ff3ef
Purpose	Coastal and marine management and research
Status	Completed
Spatial representation type	None
Spatial reference system	
Code identifying the spatial reference system	4283
Topic category	oceans

Keyword set			
keyword value	MARINE		
	MARINE-Coasts		
	MARINE-Geology-and-Geophysics		
	MARINE-Reefs		
	ECOLOGY-Habitat		
	ECOLOGY-Landscape		
Originating controlled vocabulary			
Title	ANZLIC Search Words		
Reference date	2008-05-16		
Geographic location			
Vertical extent information			
Minimum value	-100		
Maximum value	2228		
Coordinate reference system			
Authority code	urn:ogc:def:cs:EPSG::		
Code identifying the coordinate reference system	5711		
Temporal extent			
Begin position	2020-01-01		
End position	N/A		
Dataset reference date			
Resource maintenance			
Maintenance and update frequency	As needed		
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Responsible party role	pointOfContact		

Constraint set

Use constraints

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Limitations on public access

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Metadata date	2024-05-06T01:16:11.344867
Metadata language	