

Name of dataset or data source:	Seabed Landforms Classification Toolset
Custodian of the dataset or data source:	ED Science (E&H)
Description:	<p>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: <a href="https://arcg.is/1Tqmv50">https://arcg.is/1Tqmv50</a></p> <p>The Seabed Landform Classification Toolset is also available for download on GitHub (<a href="https://github.com/LinklaterM/Seabed-Landforms-Classification-Toolset/">https://github.com/LinklaterM/Seabed-Landforms-Classification-Toolset/</a>). 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.</p>

Frontiers of Marine Science, 10, <https://doi.org/10.3389/fmars.2023.1258556>. 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. <https://github.com/jeffrejevans/GradientMetrics>.

### Data quality rating:

Institutional Environment - 5  
Accuracy - 5  
Coherence - 5  
Interpretability - 5  
Accessibility - 3

## INSTITUTIONAL ENVIRONMENT

**Excellent**

Does the information have the potential to enhance services or service delivery?

The data aligns with the Data Quality Framework, including:

- Legislation
- Policies
- Information Asset Governance
- Standards
- Data Management Plans

The following governance roles and responsibilities for this asset are clearly assigned:

- Information Asset Owner
- Information Asset Custodian
- Information Steward

Data collection is authorised by law, regulation or agreement

The Custodial agency has no commercial interest or conflict of interest in the data

## ACCURACY

**Excellent**

Data has been subject to a data assurance process (for example: Checking for errors at each stage of data collection and processing, or verifying data entry and making corrections if necessary.)

Data is revised and the revision is published if errors are identified

There are no known gaps in the data or if there are gaps (for example: non-responses, missing records, data not collected), they have been identified in caveats attached to the dataset.

No changes have been made or other factors identified (for example: weighting, rounding, de-identification of data, changes or flaws in data collection or verification methods) that could affect the validity of the data; or any changes/factors have been identified in caveats attached to the asset.

The data collection met the objectives of the primary user. The data correctly represents what it was designed to measure, monitor or report.

i Find out more about the quality assurance processes from the NSW Government Standard for Data Quality Reporting. <https://www.finance.nsw.gov.au/ict/resources/data-quality-standard>

## COHERENCE

**Excellent**

Standard definitions, common concepts, classifications and data recording practices have been used.

Elements within the data can be meaningfully compared.

This data is generally consistent with similar or related data sources from the same discipline

The data can be analysed over time (for example, there have not been any significant changes in the way items are defined, classified or counted over time).

The data does not form part of a collection or, if it is the latest in a series of data releases, there have not been any changes in methodology or external impacts since the last data release.

## INTERPRETABILITY

**Excellent**

A data dictionary is available to explain the meaning of data elements, their origin, format and relationships

Information is available about the primary data sources and methods of data collection (e.g. instruments, forms, instructions).

Information is available to help users evaluate the accuracy of the data and any level of error

Information is available to explain concepts, help users correctly interpret the data and understand how it can be used

Information is available to explain ambiguous or technical terms used in the data

i Find out more about the data dictionary from the Custodian (contact details below).

i Find out more about the primary data sources and methods of data collection from the Custodian (contact details below).

i Find out more about concepts used in this dataset and how to understand or interpret the data from the Custodian (contact details below).

i Find out more about ambiguous or technical terms used in the data from the Custodian (contact details below).

## ACCESSIBILITY

Good

Data is available in machine-processable, structured form (e.g. CSV format instead of an image scan of a table)

Data is described using open standards (e.g. RDF, SPARQL) and persistent identifiers (URIs or DOIs)

Data is linked to other data, to provide context (e.g. employee ID is linked to employee name or species name is linked to genus)

Data is available online with an open licence

Data is available in a non-proprietary format (e.g. CSV, XML)

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**For more information about this dataset or data source, contact:**

NSW Department of Climate Change, Energy, the Environment and Water

**Data Broker email:**

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**Data Broker phone:**

131555

## Understanding the Data Quality Statement

The data quality statement aims to help you understand how a particular dataset could be used and whether it can be compared with other, similar datasets. It provides a description of the characteristics of the data to help you decide whether the data will be fit for your specific purpose.

### **About the quality rating:**

The reporting questionnaire asks five questions for each of these data quality dimensions:

- Institutional Environment
- Accuracy
- Coherence
- Interpretability
- Accessibility

For each question: "yes" = 1 point; "no" = 0 points

The number of points determines the Quality Level for each dimension (high, medium, low).

Only dimensions with four or five points receive a star.

Points

Quality Level

Star / No  
Star

0	Poor	No Star
1	Poor	No Star
2	Fair	No Star
3	Good	No Star
4	Very Good	Star
5	Excellent	Star

## Evaluating data quality

Quality relates to the data's "fitness for purpose". Users can make different assessments about the data quality of the same data, depending on their "purpose" or the way they plan to use the data. The following questions may help you evaluate data quality for your requirements. This list is not exhaustive. Generate your own questions to assess data quality according to your specific needs and environment.

- What was the primary purpose or aim for collecting the data?
- How well does the coverage (and exclusions) match your needs?
- How useful are these data at small levels of geography?
- Does the population presented by the data match your needs?
- To what extent does the method of data collection seem appropriate for the information being gathered?
- Have standard classifications (eg industry or occupation classifications) been used in the collection of the data? If not, why? Does this affect the ability to compare or bring together data from different sources?
- Have rates and percentages been calculated consistently throughout the data?
- Is there a time difference between your reference period, and the reference period of the data?
- What is the gap of time between the reference period (when the data were collected) and the release date of the data?
- Will there be subsequent surveys or data collection exercises for this topic?
- Are there likely to be updates or revisions to the data after official release?