#### Title NSW seabed reef extent derived from marine lidar, multibeam and aerial imagery

### **Abstract**

Rocky reef polygons were delineated from bathymetry data for the NSW seabed. Bathymetry data was sourced from marine lidar data, multibeam echosounder data and aerial imagery. Reef polygons were extracted from the seabed landforms polygons for the statewide marine lidar and multibeam surveys for Wollongong and Shellharbour (See below for associated SEED records). For the remaining areas, reef polygons were sourced from the 'NSW subtidal marine habitat layer' on SEED which included reef polygons manually digitised from multibeam surveys acquired from 2005-2017.

Sources of reef polygons: https://datasets.seed.nsw.gov.au/dataset/nsw-seabedlandforms-derived-from-marine-lidar-data-2022

https://datasets.seed.nsw.gov.au/dataset/wollongong-seabed-landforms-derived-frommbes-data-2022 https://datasets.seed.nsw.gov.au/dataset/shellharbour-seabed-

landforms-derived-from-mbes-data-2022

https://datasets.seed.nsw.gov.au/dataset/nsw-marine-habitat-data

#### Resource locator

Show on SEED Web Map

Name: Show on SEED Web Map

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Display dataset on SEED's map

Function: download

**Data Quality** Statement

Name: Data Quality Statement

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Data quality statement for NSW seabed reef extent derived from marine lidar,

multibeam and aerial imagery

Function: download

Download Package

Name: Download Package

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

Data (Esri Geodatabase and Shapefile)

Function: download

**ArcGIS REST** Service - NSW seabed reef extent

Name: ArcGIS REST Service - NSW seabed reef extent

Protocol: WWW:DOWNLOAD-1.0-http--download

Description:

An ArcGIS Server web service represents a GIS resource such as a map, locator, or image that is located on an ArcGIS Server site and is made available to client applications. Depending on the layers enabled, this web service allows a user to query its features and/or visualise the dataset. This service is aimed at advanced geographical information users, and will require access to geographical information system (GIS) software such as ArcGIS/ArcMap.

Function: download

## Unique resource identifier

Code 36600c97-4ffd-403e-9ec6-3b4efbd507df

Presentation form

Map digital

1

Edition

Dataset language	English	
Metadata standard		
Name	ISO 19115	
Edition	2016	
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/36600c97-4ffd-403e-9ec6-3b4efbd507df	
Purpose	Coastal and marine management and research	
Status	On going	
Spatial representation		
Туре	vector	
Spatial reference system		
Code identifying the spatial reference system	4283	
Spatial resolution	5 m	
Topic category		

Keyword set		
keyword value	MARINE	
	MARINE-Coasts	
	MARINE-Geology-and-Geophysics	
	MARINE-Reefs	
Originating controlled vocabulary		
Title	ANZLIC Search Words	
Reference date	2008-05-16	
Geographic location		
West bounding longitude	149.633789	
East bounding longitude	154.204102	
North bounding latitude	-37.931488	
South bounding latitude	-27.844256	
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	2005-01-01	
End position	N/A	
Dataset reference date		
Resource maintenance		
Maintenance and update frequency	As needed	
Contact info		
Contact position	Data Broker	
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water	
Telephone number	131555	
Email address	data.broker@environment.nsw.gov.au	
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew	
Responsible party role	pointOfContact	

## Lineage

Rocky reef polygons were delineated from bathymetry data for the NSW seabed. Bathymetry data was sourced from marine lidar data, multibeam echosounder data and aerial imagery. Reef polygons were extracted from the seabed landforms polygons for the statewide marine lidar and multibeam surveys for Wollongong and Shellharbour (See below for associated SEED records). For the remaining areas, reef polygons were sourced from the 'NSW subtidal marine habitat layer' on SEED which included reef polygons manually digitised from multibeam surveys acquired from 2005-2017.

Reef polygons are inferred areas of 'rocky reef' habitat. Polygon boundaries have been defined using ruggedness (surface roughness) measures and visual inspection of data, to delineate where reef areas (rough outcrops) rise from a surrounding unconsolidated areas (smooth, flat seabed). Data has been classified from 5 m cell size input bathymetry data, and minimum mapping area is 25 m2. Data has been smoothed with a 20 m tolerance using ArcGIS 10.8 'Smooth Polygons' tool, and polygons smaller in area than 25 m2 have been eliminated using the 'Eliminate' tool.

Sources of reef polygons: <a href="https://datasets.seed.nsw.gov.au/dataset/nsw-seabed-landforms-derived-from-marine-lidar-data-2022">https://datasets.seed.nsw.gov.au/dataset/wollongong-seabed-landforms-derived-from-mbes-data-2022</a>

https://datasets.seed.nsw.gov.au/dataset/shellharbour-seabed-landforms-derived-from-mbes-data-2022 https://datasets.seed.nsw.gov.au/dataset/nsw-marine-habitat-data

#### Limitations on public access

# Responsible party

Contact position Data Broker

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

Telephone number 131555

Email address <u>data.broker@environment.nsw.gov.au</u>

Web address <a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>

Responsible party role pointOfContact

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Metadata date 2024-02-26T12:59:13.120640

#### Metadata language