## 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: <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/nsw-seabed-landforms-derived-from-marine-lidar-data-2022</a>

https://datasets.seed.nsw.gov.au/dataset/wollongong-seabed-landforms-derived-from-mbes-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

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

<u>Download</u> <u>Package</u> 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 df3e3c04-6e28-4b13-b07b-ae6367cb3cd8

Presentation form

Map digital

Edition 1

Dataset language

English

### Metadata standard

Name ISO 19115

Edition	2016	
Dataset URI	https://www.planningportal.nsw.gov.au/opendata/dataset/df3e3c04-6e28-4b13-b07b-ae6367cb3cd8	
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	y environment geoscientificInformation	

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			
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		
Full postal address	NSW		
	Australia		
	data.broker@environment.nsw.gov.au		
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

#### Constraint set

Use constraints

This data is provided under a Creative Commons Attribution 4.0 licence <a href="http://creativecommons.org/licenses/by/4.0">http://creativecommons.org/licenses/by/4.0</a>. Attribute 'NSW Department of Climate Change, Energy, the Environment and Water' in publications using this data.

Limitations on public access

# Responsible party

Contact position Data Broker

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

Full postal address NSW

Australia

data.broker@environment.nsw.gov.au

Telephone number 131555

Email address data.broker@environment.nsw.gov.au

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

Metadata point of contact Contact position Data Broker NSW Department of Climate Change, Energy, the Environment and Water Organisation name Full postal address NSW Australia data.broker@environment.nsw.gov.auTelephone number 131555 data.broker@environment.nsw.gov.au Email address Web address https://www.nsw.gov.au/departments-and-agencies/dcceew Responsible party role pointOfContactMetadata date 2024-02-26T12:59:16.299751

Metadata language