EATLAS DATA CATALOGUE (AIMS)

eReefs GBR1 and GBR4 model boundary and grid in shapefile format (AIMS)

Metadata | Metadata (XML)
| Visualization service URL (WMS) () | Visualization service URL (WMS) ()
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Title	eReefs GBR1 and GBR4 model boundary and grid in shapefile format (AIMS)
Date	2020-02-13
Date type	Publication
Abstract	This dataset consists of shapefiles that correspond to the model grids used in the CSIRO eReefs hydrodynamic and biogeochemical models. These models store their results in multi-dimensional NetCDF files using a curvilinear grid. This dataset corresponds to an extract from these files converting the curvilinear grid into polygons in a shapefile. This dataset only captures the structure of the grid, not the time series data generated by the model. It contains shapefiles of the 4 km model grid (GBR4) and the 1 km grid (GBR1) as well as shapefiles for the bounding polygon of all the 'wet' cells in the model. This dataset is useful for visualising the extent of the various CSIRO eReefs models. This dataset contains shapefiles for the 1 km and 4 km eReefs grids, derived from version 2.0 of the eReefs Hydrodynamic model. It contains shapefiles of the individual grid cells and the bounds. It also includes a low resolution version of the bounds suitable for detecting whether locations are inside the eReefs model extent. The grid shapefile contains polygons representing each of the grid cells. An attribution is associated with each polygon corresponding to the depth used in the model. This can be used to show where the model has 'wet' cells. Methods: 1. Representative data files for the GBR1 and GBR4 hydrodynamic version model were downloaded from the public repository of eReefs model data on NCI. The two common grids GBR1 and GBR4 are used over the model time series and for the both the hydrodynamic and biogeochemical models. We therefore just chose one model NetCDF for each model resolution. These were taken from the hydrodynamic model version 2. 2. The grid was converted to shapefiles using an R script that calculated the coordinates corners of each curvilinear pixel in the grid based on the centroids of the neighbouring pixels. 3. The grid boundary shapefiles were calculated using the merge GIS operation in QGIS after selecting all the 'wet' cells, where the depth was greater than 0. Full step-by-step instructions and scripts are available to reproduce this dataset from github (https://github.com/eatlas/GBR_AIMS_eReefs-grid-shapefiles). Format: Shapefile Data Dictionary:

	SP_ID: Row and column indices in the NetCDF grid joined together depth: Depth used in the eReefs model in metres. This is based on the botz variable in the original NetCDF eReefs model data file. row: Row index in the NetCDF tables for this pixel. col: Column index in the NetCDF tables for this pixel. Data Location: This dataset is filed in the eAtlas enduring data repository at: X:\data\custodian\2018-22-eReefs\GBR_AIMS_eReefs-grid-shapefiles Source code for reproducing this dataset is available on github (https://github.com/eatlas/GBR_AIMS_eReefs-grid-shapefiles).

Metadata language	eng
Character set	UTF8
Hierarchy level	Dataset

OnLine resource

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Protocol	WWW:LINK-1.0-http--metadata-URL
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Protocol	WWW:LINK-1.0-http--related
Linkage	https://github.com/eatlas/GBR_AIMS_eReefs-grid-shapefiles
Protocol	WWW:LINK-1.0-http--related
Linkage	https://eatlas.org.au/pydio/public/gbraimsereefs-grid-shapefileszip
Protocol	WWW:LINK-1.0-http--downloaddata
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Protocol	WWW:LINK-1.0-http--related

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Topic category	Climatology, meteorology, atmosphere

Extent

Description	Great Barrier Reef and Coral Sea, Australia

File identifier	43ff162c-8132-41cd-8547-76a1acf58105
Metadata language	eng
Character set	UTF8

Metadata author

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Date stamp	2020-03-05T03:02:05