Tasmanian Aquaculture
& Fisheries Institute
University of Tasmania

Title **Kent Group Marine Habitat Layer–1:25000**
Custodian Tasmanian Aquaculture and Fisheries Institute
Marine Research Laboratories, Taroona
Jurisdiction Tasmania

Description

Abstract

The Kent Group marine habitat layer1: 25,000 depicts marine habitats from the coastline to the 3nm limit of the island Deal, Erith, Dover and North East Islet. The habitat types depicted in the dataset include High profile reef, Medium profile reef, Low profile Reef, Patchy Reef, Sand, Hard Sand, Silty Sand, Seagrass, Patchy Seagrass, Dense and Sparse Sponge. The data was collected through intensive field sampling in September 2002 by marine researchers at the Tasmanian Aquaculture and Fisheries Institute. The use of underwater camera equipment, echo sounder data and a Differential GPS unit allowed for the extensive area to be surveyed. The dataset is intended to be used to fulfil coastal management objectives according to *The Living Marine Resources Act 1995.*

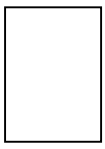
ANZLIC Search Words

Boundaries Biophysical
Fisheries
Fisheries Aquaculture
Fisheries Marine
Marine Coasts
Marine Reefs

Bounding Coordinates

Geographic Extent Name: Tasmania [-39.0 -44.0 148.5 144.5]
Geographic Extent Coordinates:

148°00’ -42°30’ 148°15’ -42°30’



148°00’ -42°40’ 148°15’ -42°40’

Dataset Currency

Beginning Date 01/09/2002
Ending Date 12/09/2002

Dataset Status

Progress: Complete
Maintenance and Update: Not planned

Dataset Access

Stored Data Format	DIGITAL: GIS ESRI shapefiles, MAPINFO shapefiles
Available Format Type	DIGITAL: GIS ESRI shapefiles, MAPINFO shapefiles
Access Constraints	All graphical and digital data produced by the Tasmanian Aquaculture and Fisheries Institute are subject to Crown Copyright. Accordingly, it is a requirement that all digital data be distributed with a Digital Data Licence Agreement or a Memorandum of Understanding in the case of Government clients. These agreements will define the terms and conditions under which the client may use the data.

Data Content

Data Type	GIS
Parameters	Biological, Physical
Equipment	Equipment employed to record and measure the data included [Furuno 600L colour sounder, Garmin 135 GPS map unit with a RACAL differential correction unit, Benthos Model 4208 8x zoom colour camera unit]
Habitat Description	Habitats identified: [High profile reef, Medium profile reef, Low profile Reef, Patchy Reef, Sand, Hard Sand, Silty Sand, Silt, Seagrass, Patchy Seagrass, Sparse Seagrass and Caulerpa].
Sample Method	Areas were sampled following transects in from the 40metre contour line to the coastline. The sampling method resembled a "zigzag" pattern at 200m intervals.
Sample Intensity	The GPS recorded depth and position regularly at 5second intervals to generate a point dataset of 200 000 points. Sampling effort was increased in areas that demonstrated complex habitat composition.

Data Quality

Lineage	Depth and positional point data was captured using a Garmin 135 GPS unit coupled with a RACAL differential correction unit. A FURUNO 600L colour sounder was used to discriminate habitat type. Employing a specially designed program, *Seabed Mapping Tool Version 1.3*, point data was attributed with one of eleven habitat classifications. The point dataset was checked for extraneous data, cleaned and converted to a point coverage using *ESRI ARCVIEW Version 3.2*. The point data was used to interpret boundaries and formed the basis of a polygon coverage that was generated from the data. Selected aerial photographs were scanned at 600dpi and stored as 24bit colour TIFF images. Each was georeferenced using *ESRI ARCINFO Version 7.2.1* to the Tasmanian Coastline coverage in AGD66. The point data was overlayed on the aerial photographs to check for continuity especially in generating the reef habitat polygons. The generated polygon coverage was edge matched to the 1:25000 coastline shape. The 1:25000 coastline was supplied by the Land Information Services Division of the Department of Primary Industry, Water and Environment Tasmania.
Positional Accuracy	The accuracy of the GPS was assessed by recording at fixed points over extended time periods. It was found to vary by no more than 12meters over a three-hour period. Aerial photographs were rectified using a minimum of 15 ground control points for each image. The average root mean square error for the photographs was X8.157 and Y10.246.
Attribute Accuracy	The attributes assigned to the 1:25000 Habitat Mapping Series were based on the interpretation of the readings given from the FURUNO colour scanner. These attributes were cross-referenced with underwater video information used to ground truth the sounder interpretations.
Logical Consistency	All data has been checked for duplicate features, extraneous points, unclipped polygons and unattributed polygons by both visual and automated means.
Completeness	The dataset is complete habitats represented within the 3nm limit of the Kent Group.

Contact

Contact Organisation	***Tasmanian Aquaculture and Fisheries Institute***
Contact Position	*Geographical Information Systems Officer*
Address	Nubeena Cresent Taroona
Phone	+61 03 62277 277
Facsimile	+61 03 62278035
E-mail Address	vhalley@dpiwe.tas.gov.au

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