Title	Estuarine Vegetation, Georges River, 2000. VIS_ID 4135
Alternative title(s)	GeorgesRiverEstuarineVeg_E_4135
Abstract	The estuarine vegetation of the lower Georges River was mapped using a combination of air photo interpretation and field survey techniques, thereby updating the maps of West et al. (1985) and Watford and Williams (1998). The new map extends the upstream coverage of wetlands identified by West et al. (1985) to Sylvania Waters, up the Woronora River and up the Georges River from Milperra to the Liverpool Weir. As a result, a uniform map of the type and distribution of estuarine macrophytes for the whole of the Georges River and the Kurnell peninsula now exists. Eight vegetative complexes have been described and located. A complex is considered to be a group of communities, and saltmarsh, for example, contains several recognisable communities. VIS_ID 4135

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Estuarine Vegetation Georges River 2000 VIS_ID 4135 Function: download
Estuarine Vegetation, Georges River, 2000. VIS_ID 4135	Name: Estuarine Vegetation, Georges River, 2000. VIS_ID 4135 Protocol: WWW:DOWNLOAD-1.0-http--download Description: Download Data Package Function: download

Unique resource identifier

Code	9b362b3a-b589-4ca3-9f47-8049057b6252

Presentation form	Map digital
Edition	unknown
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/9b362b3a-b589-4ca3-9f47-8049057b6252
Purpose	To map the estuarine vegetation of the lower Georges River.
Status	Completed

Spatial representation

Type	vector

Spatial reference system

Code identifying the spatial reference system	4283
Equivalent scale	1:None
Additional information source	Watford, F.A. and Williams, R.J. (1998) Inventory of Estuarine Vegetation in Botany Bay, With Specific Reference to Change in the Distribution of Seagrass. NSW Fisheries Research Institute, Cronulla.
Topic category	

Keyword set

keyword value	VEGETATION FLORA
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	150.88229
East bounding longitude	151.23079
North bounding latitude	-34.075331
South bounding latitude	-33.88706

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	1990-01-01
End position	N/A

Dataset reference date

Resource maintenance

Maintenance and update frequency	As needed
Contact info	
Contact position	Data Broker
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Responsible party role	pointOfContact

Lineage

Aerial Photo Interpretation (API) was used to delineate vegetation types in 1:16 000 aerial photographs taken on a rising tide on 18 January 1998 and a falling tide on 11 March 1998. Photo details are provided in Appendix 3A. An area within one kilometre of the shoreline from the Liverpool Weir to the eastern end of the Kurnell Peninsula was defined as the study site (Figure 3.1).

API of estuarine vegetation was undertaken in two stages. The initial stage, by Roberts (1999) as part of the Western Sydney Vegetation Mapping Project (NPWS 2000), included the portion of the Georges River between Liverpool Weir and Lugarno. A second stage was carried out to review Roberts' assessment as well as to map the estuarine plant communities further downstream.

NPWS and NSW Fisheries developed an API mapping pathway (Figure 3.2) to ensure features were mapped consistently throughout the two mapping stages. The pathway presents a series of rules that set out an operational mapping unit of 0.5 hectares. However, because one of the objectives of the project was to demarcate sensitive wetland habitats, finer scale mapping to 0.1 hectare was used for seagrass, saltmarsh and mangrove communities.

Boundaries for the map units indicated above were drawn on film transparencies attached to each aerial photo. Many hundreds of irregular polygons were created in this way.

Eight vegetation assemblages were mapped and described based on the presence of key species. There is one rainforest assemblage, five intertidal assemblages and two subtidal (seagrass) assemblages. Table 3.2B summarises the extant areas for each of the communities, while the following sections provide an overview of their characteristics.

A number of limitations apply to the techniques used to map vegetation, the calculations that are derived from them and hence our interpretation of the results. Some of these limitations are inherent in the use of aerial photography:

Tilt and relief. Tilt occurs as a result of the pilot's inability to keep the plane horizontal. A small amount of tilt is present in most vertical aerial photographs and results in positional displacements. Objects of high relief are displaced outwards. Other qualifications arise from the specifications of any individual flight: season and time of day flown, degree of stereoscopic overlap between runs and between photos in a run. The former are particularly important in regard to mapping underwater features. Various aspects of the photographs influence their usefulness: print scale, colour separation and balance, paper texture. Distortions of the polygons are greatest at the corners of an aerial photograph (the furthest area from the central point), but generally this distortion is counterbalanced by a distortion in an opposite direction on the abutting run. Distortion will be more likely along the joins between aerial photographic runs than at the photo centres. Amplification of distortion will occur if the data set is used at scales closer to the ground, e.g. 1: 10 000 or 1: 4 000. Reasonable interpretation tolerances must be considered.

Other considerations apply specifically to this project and must be considered in terms of the results: Stream and road patterns on the base data and the aerial photographs were not always in sympathy. For example, stream pattern disagreements often differed by up to 3mm (or 50m on the ground). When this occurred contour lines were used to tie the two sets of information together and the pattern of best fit was chosen. The status of certain sites of vegetation could not be resolved due to the lack of baseline data. There were 100 sites (Table 3.2.5A) for which no comparisons were possible as these had not been mapped in West et al. (1985). These sites should be evaluated by re-examination of the historical photographic record.

Limitations on public access

Responsible party

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Metadata point of contact

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Metadata language