Title Assessment of White Gum Moist Forest on NSW Crown Forest Estate

Alternative title(s)

Indicative White Gum Moist Forest: Survey, Classification and Mapping Completed for the NSW Environment Protection Authority

Abstract

An indicative map for White Gum Moist Forest (WGMF) was constructed to resolve long-standing issues surrounding its identification, location and extent within the NSW State Forest estate covered by the eastern Regional Forest Agreements. The determination of WGMF was reviewed by the project's Threatened Ecological Community (TEC) Reference Panel (the Panel), and a set of diagnostic parameters for identifying the WGMF TEC was agreed. Our mapping process relied upon the occurrence of E.dunnii to diagnose the presence of WGMF.

We reviewed existing vegetation maps, predictive models and observation records of E.dunnii to identify State Forests that are known or likely to include stands of the species. We then attempted several different approaches to sampling and mapping E.dunnii using ground based surveys, predictive modelling and aerial photograph interpretation (API). We used API assessment of known E.dunnii stands to identify image patterns and signatures that indicated the presence of E.dunnii. We used our findings to examine un-surveyed areas of relevant state forests via API, and then we mapped any areas which appeared to be dominated or co-dominated by E.dunnii. We also developed a Random Forest presence-absence model and used it to predict the distribution of WGMF across its range. We constructed an indicative map of WGMF using the combined results of our API mapping and our predictive model. In total, we mapped approximately 980 hectares of forest likely to be dominated or co-dominated by E.dunnii across 16 State Forests. Two thirds of the mapped area is associated with the northern populations of E.dunnii - the largest areas were in Beaury, Donaldson and Yabbra State Forests. In the southern area, Kangaroo River State Forest includes the largest representation of E.dunnii in State Forest. Our conclusions from this exercise is that our API interpretation is capable of separating E.dunnii from other related eucalypts but only where it is supported by field reconnaissance. Therefore, further work is required to increase API confidence throughout its range before our maps are suitable for operational applications. Nonetheless, our indicative map is still useful for providing a list of State Forests that include mapped areas of E.dunnii and identifying the areas that have corroborating field based evidence of E.dunnii. As our indicative map stands at present, we consider that it overestimates the extent of E.dunnii and its dominance, however, it is unlikely that extensive stands exist outside our mapped areas. We also conclude that existing mapping (including both forest type mapping and OEH (2012) mapping) significantly underestimates the likely true extent).

Indicative TEC Mapping have been generated from best available composite environmental data layers - standardised to 30 m pixels.

Resource locator

<u>Data Quality</u> Statement Name: Data Quality Statement

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

Description:

NSW Government standards direct that data should be made available with a statement regarding its quality, a so-called "Data Quality statement (DQS)", to enable potential users to determine whether the data is suitable for their requirements.

Function: download

Assessment of White Gum Moist Forest on NSW Crown Forest Estate Name: Assessment of White Gum Moist Forest on NSW Crown Forest Estate

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

Description:

Report on the Assessment of White Gum Moist Forest on NSW Crown Forest Estate

Function: download

Indicative Map for White Gum Moist Forest Threatened Ecological Community on

NSW Crown

Name: Indicative Map for White Gum Moist Forest Threatened Ecological Community on NSW Crown Forest Estate

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

Description:

Shapefile - Indicative map for the Assessment of White Gum Moist Forest on NSW

Forest Estate Crown Forest Estate Function: download Name: Operational and Indicative Maps for the Assessment of Threatened Ecological **Operational** Communities on NSW Crown Forest Estate and Indicative Maps for the Protocol: WWW:DOWNLOAD-1.0-http--download Assessment of Description: **Threatened** Ecological ESRI ArcGIS Layer File - Operational and Indicative Maps for the Assessment of **Communities** Threatened Ecological Communities on NSW Crown Forest Estate on NSW Crown **Forest Estate** Function: download Name: Native Forestry Map Viewer **Native Forestry** Map Viewer Protocol: WWW:DOWNLOAD-1.0-http--download Description: The EPA Native Forestry Map Viewer enables users to view our Koala and Threatened Ecological Community mapping without the need to access a GIS system. The map viewer allows users to perform searches to locate areas of interest and export resulting map views into various image file formats. Function: download Unique resource identifier Code 7cf8df6f-8a3a-42e7-8062-aaebd4b35722 Presentation Document digital form Edition Version 1 Dataset **English** language Metadata standard Name ISO 19115 Edition 2016 **Dataset URI** https://datasets.seed.nsw.gov.au/dataset/7cf8df6f-8a3a-42e7-8062-aaebd4b35722 Purpose Native Forestry Regulation on State Forests Status Completed Spatial representation Type vector Geometric curve Object Type Spatial reference system Code identifying the spatial 4283 reference system

Spatial

Topic category

Keyword set	
keyword value	Threatened Ecological Community
	Endangered Ecological Community
	Vegetation
	State Forest
	Indicative White Gum Moist Forest
	EEC
	TEC
	Environment Protection Authority EPA
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	152.23864
East bounding longitude	152.77453
North bounding latitude	-28.8567
South bounding latitude	-28.26098
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	2016-10-01
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	Irregular
Contact info	
Contact position	Data Broker
Organisation name	Environment Protection Authority (EPA)
Responsible party role	pointOfContact

Lineage

Line Work has been derived from the interpolation of Random Forest models based on the combination of 30m gridcell resolution climatic, topographic, substrate and remotely sensed variables. Individual grid cells represent probabilities of occurrence based on unique combinations and thresholds applied to selected variables. The lineage of model data has been drawn from a set of 158 individual data layers representing the NSW environmental data coverage.

Limitations on public access

Scope dataset

DQ Conceptual Consistency

Explanation Standard API mapping pathways have been established for mappers to apply consistent

interpretation of vegetation features including, size criteria and polygon attribution.

DQ Topological Consistency

Explanation Not assessed

DQ Absolute External Positional Accuracy

Explanation For indicative maps positional accuracy may vary depending on the selected layers

chosen in the statistical model. These may vary from source data but include 1:250000 substrate layers, 30m DEM derived topographic and climatic indices. Positional accuracy may exceed 200m with minimum polygon sizes of some environmental selected layers

reaching 50 hectares.

DQ Non Quantitative Attribute Correctness

Explanation Attribution is consistent

Responsible party

Contact position Data Broker

Organisation name Environment Protection Authority (EPA)

Responsible party role pointOfContact

Metadata point of contact

Contact position Data Broker

Organisation name Environment Protection Authority (EPA)

Responsible party role pointOfContact

Metadata date 2024-02-26T13:07:13.274734

Metadata language