Title	Assessment of Lowland Grassy Woodland, Brogo Wet Vine Forest And Dry Rainforests of The South East Forests TECs on NSW Crown Forest Estate
Alternative title(s)	Lowland Grassy Woodland, and Brogo Wet Vine Forest, Dry Rainforest of the South East Forests: Survey, Classification and Mapping Completed for the NSW Environment Protection Authority
Abstract	Indicative map for Lowland Grassy Woodland: The indicative map for Lowland Grassy Woodland 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 Lowland Grassy Woodland was reviewed by the project's Threatened Ecological Community (TEC) Reference Panel (the Panel), and a set of diagnostic parameters for the identifying the Lowland Grassy Woodland TEC was agreed upon. Using these diagnostic parameters, we sampled candidate areas from existing vegetation maps to identify potential areas of Lowland Grassy Woodland occurrence in 296 000 hectares of State Forest and undertook additional mapping work using two independent mapping methods. Random Forest models (predictive habitat models) were generated using plot data and a selection of environmental variables. Aerial photo interpretation targeted stands of forests dominated by Eucalyptus tereticornis to refine the potential boundaries of Lowland Grassy Woodland. We tested whether Lowland Grassy Woodland was present in State Forest by completing systematic plot surveys within mapped areas indicating potential presence. We compared our collected data to a large regional pool of plot data that contained a subset of plots assigned to vegetation map units cited in the determination for the Lowland Grassy Woodland TEC (see Gellie 2005, Tozer et al 2006, and Keith and Bedward 1999). Our analysis of data confidently assigned only a few plots in State Forest to Lowland Grassy Woodland (2/43). From these results, we were unable to construct an operational map for Lowland Grassy Woodland. The relationship between the existing mapping cited in the determination and the plot data on State Forest was not strong enough to be a reliable basis for mapping the TEC. We also found that Eucalyptus tereticornis could not reliably be used as an indicator of Lowland Grassy Woodland in State forests. As a result, we were unable to map this TEC from the few confirmed sampling points without including a significant area of forest that was highly unlikely to be Lowland Grassy Woodland. However, we created indicative maps of Lowland Grassy Woodland by merging our predictive and API maps to provide an indication of the likely extent of Lowland Grassy Woodland in State Forests. Operational map for Brogo Wet Vine Forest: The operational map for Brogo Wet Wine Forest (BWVF) 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. We assessed whether BWVF was likely to be present in more than 296 000 hectares of State Forest in the South-east Corner Bioregion. The project's Threatened Ecological Community (TEC) Reference Panel (the Panel) preceded the assessment process by reviewing the determination for BWVF and reaching an agreed interpretation of floristic, environmental and distributional characteristics. The Panel found that BWVF is primarily defined by a source vegetation community derived from quantitative floristic plot data (Keith and Bedward, 1999), with additional defining characteristics relating to bioregion and elevation. The Panel's interpretation resulted in the identification of all State Forests located below an elevation threshold of 550 metres within the South East Corner Bioregion as potentially containing BWVF. We identified other potential areas of BWVF by overlaying the cited vegetation maps and any State Forest mapping where vegetation was dominated by or includes Eucalyptus tereticornis (a defining species of BWVF). Within these state forests, we used aerial photo interpretation (API) to identify and delineate potential areas of BWVF based on structural characteristics and overstorey and understorey attributes, namely dominance or inclusion of Eucalyptus tereticornis. We then compiled floristic plot data for all State Forest areas within our study area. The floristic plot data was sourced from both existing flora surveys held in the OEH VIS database and from targeted flora surveys conducted specifically for this project. We used multivariate analysis to compare plots assigned to vegetation communities identified as BWVF in the determination to all other plots in the study area. We used explicit membership thresholds to identify whether plots in State forests and elsewhere belonged to one or more of the communities listed in the BWVF determination. We used the plot assignments to candidate BWVF to develop a predictive presence and absence Random Forest statistical model. The model generates a probability of occurrence of BWVF for each grid cell using plot data and a selection of environmental and remote-sensing variables. We constructed our operational map using the API line work in combination with the floristic plot data and our predictive habitat models to identify and map the locations and extent of BWVF. Our mapping identified six small areas of Brogo Wet Vine Forest totalling 17.5 hectares. All areas were within Bodalla State Forest and were located on the exposed lower slopes of Mount Dromedary. Operational map for Dry Rainforest of the South East Forests:

The operational map for Dry Rainforest of the South East Forests (Dry Rainforest) 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 Dry Rainforest was reviewed by the project's Threatened Ecological Community (TEC) Reference Panel (the Panel), and a set of diagnostic parameters for the identifying the Dry Rainforest TEC was agreed upon. Using these diagnostic parameters, we sampled candidate areas from existing vegetation maps to identify potential areas of Dry Rainforest occurrence in 296 000 hectares of State Forest and undertook additional mapping work using two independent mapping methods. Random Forest models (predictive habitat models) were generated using plot data and a selection of environmental variables. Aerial photo interpretation targeted stands of forests dominated by Ficus rubiginosa to refine the potential boundaries of Dry Rainforest. We tested whether Dry Rainforest was present in State Forest by completing systematic plot surveys within mapped areas indicating potential presence. We compared our collected data to a large regional pool of plot data that contained a subset of plots assigned to vegetation map units cited in the determination for the Dry Rainforests TEC (see Keith and Bedward 1999). Our analysis of data confidently assigned only a few plots in State Forest to Dry Rainforest (2/21). From these results, we were able to construct an operational map for Dry Rainforest. We identified six small patches of Dry Rainforest but only one patch was located within the study area. This patch was located in Towamba State Forest and was 0.53 hectares.

Operational TEC Mapping have been derived by API at a viewing scale between 1-4000 using ADS40 50 cm pixel imagery and 1 m derived LIDAR DEM grids for floodplain EECs.

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

Resource locator

Data Quality 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 Lowland Grassy Woodland, Brogo Wet Vine Forest And Dry Rainforests of The South East Forests TECs on NSW Crown Forest Estate

Name: Assessment of Lowland Grassy Woodland, Brogo Wet Vine Forest And Dry Rainforests of The South East Forests TECs on NSW Crown Forest Estate

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

Description:

Report on the Assessment of Lowland Grassy Woodland, Brogo Wet Vine Forest And Dry Rainforests of The South East Forests TECs on NSW Crown Forest Estate

Function: download

Indicative Map for Lowland Grassy Woodland Threatened Ecological Community on NSW Crown Forest Estate

Name: Indicative Map for Lowland Grassy Woodland Threatened Ecological Community on NSW Crown Forest Estate

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

Description:

Shapefile - Indicative map (Lowland Grassy Woodland) for the Assessment of Lowland Grassy Woodland, Brogo Wet Vine Forest And Dry Rainforests of The South East Forests TECs on NSW Crown Forest Estate

Function: download

Operational Map for Brogo Wet Vine Forest Threatened

Name: Operational Map for Brogo Wet Vine Forest Threatened Ecological Community on NSW Crown Forest Estate

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

Description:

Ecological Community on NSW Crown Forest Estate	Shapefile - Operational map (Brogo Wet Vine Forest) for the Assessment of Lowland Grassy Woodland, Brogo Wet Vine Forest And Dry Rainforests of The South East Forests TECs on NSW Crown Forest Estate Function: download
Operational Map for Dry Rainforest of the South East Forests Threatened Ecological Community on NSW Crown Forest Estate	Name: Operational Map for Dry Rainforest of the South East Forests Threatened Ecological Community on NSW Crown Forest Estate Protocol: WWW:DOWNLOAD-1.0-http--download Description: Shapefile - Operational map (Dry Rainforest of the South East Forests) for the Assessment of Lowland Grassy Woodland, Brogo Wet Vine Forest And Dry Rainforests of The South East Forests TECs on NSW Crown Forest Estate Function: download
Operational and Indicative Maps for the Assessment of Threatened Ecological Communities on NSW Crown Forest Estate	Name: Operational and Indicative Maps for the Assessment of Threatened Ecological Communities on NSW Crown Forest Estate Protocol: WWW:DOWNLOAD-1.0-http--download Description: ESRI ArcGIS Layer File - Operational and Indicative Maps for the Assessment of Threatened Ecological Communities on NSW Crown Forest Estate Function: download
Native Forestry Map Viewer	Name: 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	13bb220d-f9a7-48d6-af0a-899ff2077de0

Presentation form	Map digital
Edition	Version 1
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016

Dataset URI	https://datasets.seed.nsw.gov.au/dataset/13bb220d-f9a7-48d6-af0a-899ff2077de0
Purpose	Native Forestry Regulation on State Forests
Status	Completed

Spatial representation

Type	vector
Geometric Object Type	curve

Spatial reference system

Code identifying the spatial reference system	4283

Spatial resolution

30 m

Topic category

Keyword set

keyword value	Threatened Ecological Community Endangered Ecological Community Vegetation State Forest Lowland Grassy Woodland Brogo Wet Vine Forest Dry Rainforest of the South East Forests EEC TEC Environment Protection Authority EPA
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16

Geographic location

West bounding longitude	149.32061
East bounding longitude	150.25679
North bounding latitude	-37.18257
South bounding latitude	-35.45536

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

Indicative map of Lowland Grassy Woodland:

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.

Operational maps of Brogo Wet Vine Forest and Dry Rainforest of the South East Forests:

Linework has been derived from manual interpretation of stereoscopic 3D ADS-40 imagery collected at a 50cm resolution. Date of photography varies across eastern NSW between 2009-2015. Interpretation has collected a range of floristic attributes including canopy species dominance, understorey attributes and assessment of landscape characteristics. Lines have been interpreted using a viewing scale between 1:2000- 1: 5000. Interpretation has been supported by field traverse (except bogs and saltmarsh), and existing field based observation data held by OEH. Final linework was assembled using combinations of aerial photo patterns, predictive TEC models, systematic plot data and where relevant fine scale topographic data derived from 1 metre resolution digital elevation model.

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: Indicative map of Lowland Grassy Woodland: 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. Operational maps of Brogo Wet Vine Forest and Dry Rainforest of the South East Forests: Positional accuracy for operational maps has been measured using independent assessment of interpreted lines as a mean of 8.5 metres. Other influence on positional accuracy include the accuracy of field based GPS records currently tested at a mean of 9.2 metres. Some error with interpreted line from 2D to 3D environment can result in a positional shift of up to 10 metres.

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	2024-02-26T13:45:57.433002
Metadata language	