

**Title**

Kuluwan Flora Reserve Vegetation 2025. VIS\_ID 5233

**Abstract**

Kuluwañ Flora Reserve vegetation mapping was conducted by Eastcoast Flora Survey environmental consultants (Steve Bell and Ryan Sims) for Hunter Central Coast Branch in 2024-25. Kuluwañ Flora Reserve is located on the Central Coast hinterland in NSW approximately 30 km north-west of Gosford. In January 2021, the NSW National Parks and Wildlife Service (NPWS) was appointed as land manager of several Forestry Corporation NSW, Flora Reserves. One of these is the Kuluwañ Flora Reserve (FR), which occurs in the Central Coast Area (CCA) of the NPWS Hunter Central Coast Branch.

To facilitate effective management of this reserve, NPWS required detailed information on floristics and vegetation communities. This information will be used to identify those species and communities of high conservation significance to inform future plans of management and associated works, fire management strategies, weed control strategies and rehabilitation plans. Full-floristic survey site information is required to support native vegetation mapping.

Comprehensive field survey was undertaken across the 1610 ha. Ten vegetation communities were delineated, described and mapped. Multivariate clustering and nMDS ordination techniques on 36 sample plots and 373 plant taxa were undertaken in support of field observations, and there was good congruence between these two techniques suggesting a robust classification was achieved. In total, 373 taxa were recorded from Kuluwañ FR, and only four of these were weeds. The threatened shrub *Rhodamnia rubescens* (critically endangered) was relatively common across most sheltered slopes, and all populations displayed signs of Myrtle Rust infection despite good flowering. The vulnerable *Melaleuca biconvexa*, included in databases as present on the eastern edge of the reserve, could not be substantiated during current surveys. Additionally, the rare ironbark, bottlebrush and wattle were all recorded within Kuluwañ. Diversity in eucalypts (*Angophora*, *Corymbia*, *Eucalyptus*) within Kuluwañ FR is high for such a small area, with twenty-one (21) species recorded over the 1610 ha. This equates to one newly encountered species every 77 ha and is consistent with trends evident in other parts of the Central Coast and Hunter Valley. As might be expected, the vegetation present within Kuluwañ FR shows strong affinities to that in the nearby Jiliby/Watagan and Yengo/Parr reserve systems. This is reflected in the relative ease with which vegetation communities could be affiliated with those described for those reserves. The characteristic species present across ridges and slopes, as well as those on gullies and alluvial flats, are mostly consistent with those in these reserves. Nearly all of the eucalypts recorded within Kuluwañ FR are considered Koala use species for the Central Coast, in addition to three non-eucalypt species. Kuluwañ FR consequently provides substantial habitat for Koala, based on the diversity and abundance of over 20 known use tree species.

Detailed information is included in the report: Bell, S.A.J. & Sims, R. (2025) Vegetation and floristics of Kuluwañ Flora Reserve, Central Coast LGA. Unpublished Report to NSW National Parks and Wildlife Service. January 2025. Eastcoast Flora Survey.

VIS\_ID 5233

**Resource locator**[Data Quality Statement](#)

Name: Data Quality Statement

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

Description:

Data quality statement for Kuluwan Flora Reserve Vegetation 2025. VIS\_ID 5233

Function: download

[KuluwanVeg2025\\_VIS5233 GDB](#)

Name: KuluwanVeg2025\_VIS5233 GDB

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

Description:

Feature dataclass of Kuluwan Flora Reserve Vegetation

Function: download

[Kuluwan  
FR\\_VegetationReport\\_2025](#)

Name: Kuluwan FR\_VegetationReport\_2025

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

Description:

Kuluwan Flora Reserve Vegetation Report (2025) Stephen Bell & Ryan Sims

Function: download

## Unique resource identifier

Code 4c91ead0-b98c-4a28-a519-7cf2cddcbc2f

Presentation form Map digital

Edition 1

Dataset language English

## Metadata standard

Name ISO 19115

Edition 2016

Dataset URI <https://datasets.seed.nsw.gov.au/dataset/4c91ead0-b98c-4a28-a519-7cf2cddcbc2f>

Purpose Conservation and Fire Management

Status Completed

## Spatial representation

Type vector

## Spatial reference system

Code identifying the spatial reference system 4283

Equivalent scale 1:None

Additional information source Bell, S.A.J. & Sims, R. (2025) Vegetation and floristics of Kuluwan Flora Reserve, Central Coast LGA. Unpublished Report to NSW National Parks and Wildlife Service. January 2025. Eastcoast Flora Survey.

## Topic category

<b>Keyword set</b>	
keyword value	VEGETATION-Floristic VEGETATION
<b>Originating controlled vocabulary</b>	
Title	ANZLIC Search Words
Reference date	2008-05-16
<b>Geographic location</b>	
West bounding longitude	151.20827
East bounding longitude	151.25524
North bounding latitude	-33.21712
South bounding latitude	-33.14122
NSW Place Name	Central Coast hinterland in NSW
<b>Vertical extent information</b>	
Minimum value	-100
Maximum value	2228
<b>Coordinate reference system</b>	
Authority code	urn:ogc:def:cs:EPSG::
Code identifying the coordinate reference system	5711
<b>Temporal extent</b>	
Begin position	2024-01-07
End position	N/A
<b>Dataset reference date</b>	
<b>Resource maintenance</b>	
Maintenance and update frequency	Not planned
<b>Contact info</b>	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	<a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a>
Web address	<a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>
Responsible party role	pointOfContact

**Lineage** Vegetation survey was conducted within Kuluwañ FR predominantly during July-August 2024. Given the rugged nature of much of the FR, sampling of Full Floristic Plots (FFPs) was undertaken concurrently with RDP acquisition. Six hundred and two (602) Rapid Data Points (RDPs; 1 point per 2.7 ha) were collected within Kuluwañ FR during field reconnaissance. This level of ground reconnaissance was facilitated through open walking conditions across most ridges, although some sheltered slopes and gullies were less traversable. For all RDPs, information on dominant plant species in each stratum was recorded and incorporated directly into the sampling stratification and vegetation mapping process. Multivariate cluster analysis of 36 sample plots and 373 plant taxa resulted in the definition of eleven significant splits ( $p < 0.01$ ), and within these a further two expert-driven non-significant splits could be made to recognize highly restricted and/or poorly sampled vegetation types. This resulted in the delineation of ten vegetation communities. Reference was also made against historical mapping data.

Limitations on public access

### Responsible party

Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	<a href="mailto:data.broker@environment.nsw.gov.au">data.broker@environment.nsw.gov.au</a>
Web address	<a href="https://www.nsw.gov.au/departments-and-agencies/dcceew">https://www.nsw.gov.au/departments-and-agencies/dcceew</a>
Responsible party role	pointOfContact

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Responsible party role	pointOfContact

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**Metadata language**