

## Title

Koala Habitat Suitability Model for North East NSW

## Abstract

A habitat suitability model at a 250 m resolution for the Koala *Phascolarctos cinereus* in north-eastern New South Wales using 'presence only' records and MaxEnt modelling. Model extent was based on the extent of Crafti vegetation mapping for north east NSW. Substantial spatial clustering of records in coastal urban areas was reduced using a 2 km spatial filter and by modelling separately two sub-regions divided by the 500 m elevation contour. An average of 1086 occurrence records was used to develop models. A bias file was prepared that accounted for variable survey effort, including the concentration of Koala records along sealed and unsealed roads. A reduced set of 14 variables was used in model building. The models were evaluated using a test set of 25 % of the records, with a resulting good fit for each model, as measured by AUC. Frequency of wildfire, Australian Soil Classification, floristic mapping and elevation had the highest relative contribution to the model, whilst a number of other variables made minor contributions. The model was field validated at 65 ground-truth sites.

## Resource locator

### [Data Quality Statement](#)

Name: Data Quality Statement

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

Description:

DQS for Koala Habitat Suitability Model for North East NSW

Function: download

### [Koala predictive habitat model sub-region 1 - less than 500m elevation](#)

Name: Koala predictive habitat model sub-region 1 - less than 500m elevation

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

Description:

ESRI GRID - Sub-region 1 (less than 500m elevation)

Function: download

### [Koala predictive habitat model sub-region 2 - more than 500m elevation](#)

Name: Koala predictive habitat model sub-region 2 - more than 500m elevation

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

Description:

ESRI GRID - Sub-region 1 (less than 500m elevation)

Function: download

### [Koala predictive habitat models](#)

Name: Koala predictive habitat models

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

Description:

ESRI ArcGIS Layer File

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

### [Koala Habitat Suitability Model - Technical Report](#)

Name: Koala Habitat Suitability Model - Technical Report

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

Description:

Technical Report

Function: download

## Unique resource identifier

Code 8d8d8006-dd82-440a-8ad1-a02130138fdb

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/8d8d8006-dd82-440a-8ad1-a02130138fdb>

Purpose To model variations in habitat suitability for Koalas in forests across tenure and at a fine resolution (250 m) using a range of environmental layers.

Status Completed

Spatial representation type grid

## Spatial reference system

Code identifying the spatial reference system 4283

Spatial resolution 250 m

Topic category

<b>Keyword set</b>	
keyword value	Ecology - habitat Native Fauna VEGETATION Natural Forests
<b>Originating controlled vocabulary</b>	
Title	ANZLIC Search Words
Reference date	2008-05-16
<b>Geographic location</b>	
West bounding longitude	149.606543
East bounding longitude	153.457031
North bounding latitude	-35.650863
South bounding latitude	-29.082286
<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	1990-01-01
End position	N/A
<b>Dataset reference date</b>	
<b>Resource maintenance</b>	
Maintenance and update frequency	Irregular
<b>Contact info</b>	
Contact position	Data Broker
Organisation name	Environment Protection Authority (EPA)
Responsible party role	pointOfContact
<b>Lineage</b>	The model was produced in 2015 from Koala records collated between 1990-2015.
<b>Limitations on public access</b>	

**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

<b>Metadata date</b>	2024-02-26T13:39:42.708848
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<b>Metadata language</b>	
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