## 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

Name: Koala Habitat Suitability Model - Technical Report

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

Report 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		

eyword set	Ecology habitat		
seyword value	Ecology - habitat Native Fauna		
	VEGETATION		
	Natural Forests		
Originating controlled vocabulary			
Title	ANZLIC Search Words		
Reference date	2008-05-16		
Geographic location			
West bounding longitude	149.606543		
East bounding longitude	153.457031		
North bounding latitude	-35.650863		
South bounding latitude	-29.082286		
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	Irregular		
Contact info			
Contact position	Data Broker		
Organisation name	Environment Protection Authority (EPA)		
Responsible party role	pointOfContact		
Lineage The model was produced in 2015 fro	om Koala records collated between 1990-2015.		

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	2024-02-26T13:39:42.708848			
Metadata language				