Title	NSW Koala Likelihood Map v2.0 (August 2019)
Alternative title(s)	KLM v2.0
Abstract	The Koala Likelihood Map (KLM) predicts the likelihood of finding a koala relative to other arboreal mammals across a 10-km grid covering NSW. It is built using existing arboreal mammal records from the past 20 years (currently 1999 to 2019) and represents the likelihood of koalas as the proportion of all records within a grid cell that are koalas. The records of other arboreal mammals provide a measure of survey effort independent of koalas and allow identification of areas where other arboreal mammals have been recorded, but not koalas. The map also includes a measure of the confidence in the koala likelihood estimate. This enables deficiencies in the data to be highlighted, and recommendations to be made for areas requiring further survey. The KLM is a useful tool that can be used to inform a range of koala conservation and management issues, however it is not static and should be updated regularly as new data become available. The KLM was first developed in 2014 for use in private native forestry regulation, on behalf of the NSW Environment Protection Authority. An updated and refined version of the map (NSW Koala Baseline Likelihood Map 2016) was produced in 2016 and has been used to inform provisions for koala protection under the Coastal Integrated Forestry Operations Approvals and is planned to inform the future review of the Private Native Forestry Code of Practice. This latest version of the KLM (v2.0 August 2019) includes new data from BioNet and Spot Assessment Technique (SAT) survey databases, as well as SAT data from a targeted state-wide field survey program. The KLM v2.0 (August 2019) is delivered under the NSW Koala Strategy's Koala Habitat Information Base. This comprises several layers of spatial information, including: Koala Habitat Suitability Model (KHSM) – the probability of finding koala habitat at any location; Koala Tree Suitability Index (KTSI) – the probability of finding a tree species that koalas are known to use for food or shelter; Koala Likelihood Map (KLM) including a confidence layer – predicts the likelihood of finding a koala at a location; Areas of Regional Koala Significance (ARKS) – identifies key koala populations and management areas with potential for long-term viability as well as priority threats to key koala populations; Native vegetation of NSW – this is a high-resolution map of native tree cover and water bodies; and all koala sightings recorded in NSW Bionet. All Koala Habitat Information Base (KHIB) datasets are available for download below under 'Dataset Relationship'.

Resource locator

Data Quality Statement	Name: Data Quality Statement Protocol: WWW:DOWNLOAD-1.0-http--download Description: Data quality statement for NSW Koala Likelihood Map v2.0 (August 2019) Function: download
Download Package	Name: Download Package Protocol: WWW:DOWNLOAD-1.0-http--download Description: Shapefile Data (NSW Koala Likelihood Map v2.0 (August 2019)) Function: download
NSW Koala Baseline Likelihood Map 2016	Name: NSW Koala Baseline Likelihood Map 2016 Protocol: WWW:DOWNLOAD-1.0-http--download Description: Link to 2016 version of the NSW Koala Likelihood Map Function: download
ArcGIS REST	Name: ArcGIS REST Services Directory - NSW Koala Likelihood Map v2.0 (August 2019)

Services Directory - NSW Koala Likelihood Map v2.0 (August 2019)	Protocol: WWW:DOWNLOAD-1.0-http--download Description: ArcGIS REST Services Directory – provides a variety of interfaces for web browsers, GIS users and developers, to view maps. Function: download
WMS - NSW Koala Likelihood Map v2.0 (August 2019)	Name: WMS - NSW Koala Likelihood Map v2.0 (August 2019) Protocol: WWW:DOWNLOAD-1.0-http--download Description: Web Map Service (WMS) is a standard protocol for serving georeferenced map images over the internet that are generated by a map server using data from a GIS Database (NSW Government - Spatial Web Services Register June 2015). WMS allows a user to spatially visualise the dataset, but not query its features. This service is aimed at advanced geographical information users, and will require access to geographical information system (GIS) software such as QGIS and ArcGIS/ArcMap. Function: download

Unique resource identifier

Code	1cd5808c-e4df-4a61-8cc1-09b8f0d76344
Presentation form	Map digital
Edition	2.0 (August 2019)
Dataset language	English

Metadata standard

Name	ISO 19115
Edition	2016
Dataset URI	https://datasets.seed.nsw.gov.au/dataset/1cd5808c-e4df-4a61-8cc1-09b8f0d76344
Purpose	To aid with the conservation and management of koalas
Status	Required

Spatial representation

Type	vector

Spatial reference system

Code identifying the spatial reference system	4283
Spatial resolution	10 km
Additional information source	Predavec, M., Lunney, D., Shannon, I., Scotts, D., Turbill, J., and Faulkner, B. (2015). Mapping the likelihood of koalas across New South Wales for use in Private Native Forestry: developing a simple, species distribution model that deals with opportunistic data. Australian Mammalogy 37, 182–193.

Topic category	
Keyword set	
keyword value	ECOLOGY
	FAUNA-Native
Originating controlled vocabulary	
Title	ANZLIC Search Words
Reference date	2008-05-16
Geographic location	
West bounding longitude	140.99928
East bounding longitude	153.63883
North bounding latitude	-37.50508
South bounding latitude	-28.15702
NSW Place Name	State of NSW
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	1999-01-01
End position	N/A
Dataset reference date	
Resource maintenance	
Maintenance and update frequency	Unknown
Contact info	
Contact position	Data Broker
Organisation name	NSW Department of Climate Change, Energy, the Environment and Water
Telephone number	131555
Email address	data.broker@environment.nsw.gov.au
Web address	https://www.nsw.gov.au/departments-and-agencies/dcceew
Responsible party role	pointOfContact

Lineage

The map is built using existing koala records and records of 8 species of other arboreal mammals from approximately the past 20 years (currently January 1999 to August 2019). Records were obtained from NSW BioNet and other independent sources, e.g. Spot Assessment Technique (SAT) survey databases. SAT data resulting from a state-wide field survey program designed to update the map were also included (this data will be made available in BioNet in late 2019). Where SAT datasets were included, the koala absence data (i.e. indicating the survey sites where koalas weren't found) were used in place of other arboreal mammal records as the measure of survey effort. A filtering process was implemented to reduce some of the inherent biases in the BioNet data. These data form the basis of the estimates of the likelihood of finding a koala across NSW and the confidence in the estimates.

Limitations on public access

Scope: dataset

DQ Completeness Commission

Effective date: 2019-08-12

Explanation: The assessment covers all of NSW. The map includes areas that include no records of koalas or of other arboreal mammals. These grid cells are identified in the map layer (p = 999, Confidence = No Data). The lack of data in these grid cells is noted and incorporated into the final mapping.

DQ Completeness Omission

Effective date: 2019-08-12

Explanation: The assessment covers all of NSW. The map includes areas that include no records of koalas or of other arboreal mammals. These grid cells are identified in the map layer (p = 999, Confidence = No Data). The lack of data in these grid cells is noted and incorporated into the final mapping.

DQ Conceptual Consistency

Effective date: 2019-08-12

Explanation: The estimate of the likelihood of koalas for each grid cell should be viewed relative to each other and not as absolute numbers.

DQ Absolute External Positional Accuracy

Effective date: 2019-08-12

Explanation: Records in NSW BioNet include a spatial accuracy field. Only records with a spatial accuracy less than or equal to 10 kilometre (the size of the spatial grid used in the state-wide assessment) were used in the preparation of the map.

DQ Non Quantitative Attribute Correctness

Effective date: 2019-08-12

Explanation: The map includes a relative measure of the accuracy of the koala likelihood estimates based on a 95% confidence interval.

Responsible party

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

Metadata point of contact

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Responsible party role	pointOfContact

Metadata date

2024-02-26T13:39:55.532388

Metadata language