

Forestry Corporation Logging of OEH Koala Hubs



Dailan Pugh
North East Forest Alliance
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Forestry Corporation

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This review focuses on assessing recent logging by the Forestry Corporation of Koala Hubs as identified by the Office of Environment and Heritage.

The Office of Environment and Heritage (OEH) have analysed Koala records *"to delineate highly significant local scale areas of koala occupancy currently known for protection"*, which they term Koala Hubs. Based on the data then available these are the known highest priority areas for Koala protection in NSW to increase their survival prospects.

Koala populations in NSW are in precipitous decline. The threats are immense in coastal areas (where most hubs are), making the protection of the 19,785 ha of Koala Hubs on State Forests in hinterland areas the highest priority for the basis of a Koala reserve system to safeguard core Koala populations and begin to stabilise Koala numbers.

Further work has been undertaken by WWF which identifies Koala Reserves based on a broader analysis of Koala Hubs, though this assessment is limited to Koala Hubs as identified by OEH.

This review found that of the OEH Koala Hubs on State forests in north-east NSW, 2,546 ha has been logged over the 4 year assessment period 2015-2018, which is an average of 636 ha logged per annum within Koala Hubs. It is assumed that some 430 ha of Koala hubs have so far been logged since they were identified. Many more are proposed for logging in current harvesting plans,

Outside exclusion zones and plantations there are 12,253 ha of Koala Hubs identified on State Forests, which means that over the past 4 years 21% of the loggable area of Koala Hubs within native forests on State Forests have been logged. Many of these have been logged well in excess of allowable logging intensities, with significant areas subjected to the unlawful logging practices of heavy and regeneration Single Tree Retention.

Of the 2,546 ha logged from 2015-2018, 1,283 ha (50%) has been modelled by DPI Forestry (Law *et. al.* 2017) as high quality Koala habitat and 574 ha (23%) as medium quality habitat. There are also 590 Koala records within the logged areas of the Koala Hubs. These confirm the importance of these areas for Koalas, and emphasise that this should have been well known to the Forestry Corporation before they logged them.

Over the period 2015 to March 2017 in the Lower North East forestry region, of these logged Koala hubs 22 ha is identified as being subject to the unlawful logging regimes of Regeneration Single Tree Retention (STS), 116 ha to heavy STS, and 348 ha to medium STS. It is evident from Harvesting Plans that intensive logging of Koala Hubs is more widespread than indicated by these figures, which is also shown by satellite images. This shows that many of these Koala Hubs, and surrounding areas, were subject to more intensive logging than the logging rules allowed.

It is essential for the future of Koalas that a moratorium be immediately placed on all remaining OEH Koala Hubs on State Forests, along with potential habitat within one kilometre, while further ground based assessments are undertaken to delineate the full extent these *"highly significant"* resident populations which, based on current records, are the highest priority for protection on public lands.

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1. Background

The Office of Environment and Heritage (OEH) has been involved in developing data on Koala habitat with the aim of implementing recommendations of the Independent Review into the Decline of Koala Populations in Key Areas of NSW ([NSW Chief Scientist and Engineer 2016](#)), specifically:

- *Identify key koala populations and management areas which have the potential for long term recovery and viability*
- *Identify priority threats to key koala populations at the population scale*
- *That government agencies identify priority areas of land across tenures to target for koala conservation management and threat mitigation*

The OEH reports and data prepared in response to the Chief Scientist's recommendations were released to the National Parks Association under a Government Information (Public Access) request.

For one of their assessments OEH (undated) have analysed Koala records "to delineate highly significant local scale areas of koala occupancy currently known for protection", noting:

These areas are not designed to be an exhaustive account of all koala presence across NSW, but rather define areas of currently known significant koala occupancy that indicate clusters of resident populations known as Koala Hubs.

A total of 567 Hubs were identified. Altogether, 101768 hectares, or around 0.13% of NSW is mapped as Koala Hubs.

	Mapped Koala Hubs NSW		Mapped Koala Hubs NE NSW		Great Koala NP (proposed)		NSW New Koala Reserves (2018)	
	(ha)	% hubs	(ha)	% NSW	(ha)	% NSW	(ha)	% NSW
National Park	15,904	16	10,532	66	2,521	16		
State Forest	19,785	19	15,522	79	8,697	44	181	0.9
Private	66,162	65	51,463	78	0			
TOTAL	101,851		77,517	76	11,218	11	181	0.2

Tenure of Koala Hubs in NSW (Note there are some small differences to OEH figures due to GIS reporting).

Of the OEH mapped Koala Hubs in NSW, 35,656 ha (35%) occur on public lands. Some 19,785 ha (55%) of these are on State Forests. It is considered that greater survey effort in hinterland areas will significantly increase the number of Koala hubs identified and better delineate their extent.

The Koala Hubs on State Forests are those areas OEH considers are "*highly significant local scale areas of koala occupancy*". While not exhaustive and inadequate on their own, on the basis of available data, these are known to be the very highest priority areas for Koala protection and thus should be the core areas of any reserve system for Koalas and excluded from logging (WWF have undertaken a more inclusive analysis and identified a proposed Koala reserve system based on this approach).

When announcing the new Koala Strategy on 7th May, 2018, the Government's press release stated:

The centerpiece of the NSW Koala Strategy is setting aside large swathes of land where koalas can thrive and new habitats can be created.

"It is absolutely vital that we protect land where koalas currently live - and secure land where new koala colonies may exist in the future," said Environment Minister Gabrielle Upton.

"Initially, 24,538 hectares of State forest will be set aside for koalas – with more to come.

Regrettably the only criteria applied by the NSW Government appears to have been selecting non-commercial areas of State Forests, with no regard for Koala habitat or Koala Hubs. This is proven by the facts that only 181 ha (0.9%) of the OEH Koala Hubs were included, that four of the 12 Koala reserves have no records of Koalas, and only 2 have records from the past decade (see reports on <https://www.nefa.org.au/koalas>). By comparison the proposed Great Koala National Park has 8,697 ha (44%) of the Koala Hubs on State Forests.

This disregard for the OEH Koala Hubs is reflected in the Forestry Corporation's refusal to consider them when logging.

Of the 19,785 ha of OEH Koala Hubs on State Forest: 11,849 ha (60%) are included in the Forest Management Zone (FMZ) 4 'General Management' which is the general logging zone, 340ha (1.7%) in FMZ 3B 'Special Prescription' which is treated like the general logging area, 1,240 ha (6.3%) in Zone 5 'Hardwood Plantations' which are mostly clearfelled, and 6,280 ha (31.8%) is currently protected from logging in Zones 1, 2 and 3A. Though the protection may be short lived as the Government intends to remap currently protected oldgrowth and rainforest to make them available for logging.

Zoning of OEH Koala Hubs on NSW State Forests

FMZ	Area (ha)	%
Zone 1 - Special Protection Zone	3317	16.8
Zone 2 - Special Management Zone	1231	6.2
Zone 3A - Harvesting Exclusions Zone	1732	8.8
Zone 3B - Special Prescription Zone	340	1.7
Zone 4 - General Management Zone	11849	59.9
Zone 5 - Hardwood Plantations Zone	1240	6.3
Zone 6 - Softwood Plantations Zone	12	0.1
Zone 7 - Non Forestry Use Zone	63	0.3
Zone 8 - Areas for further assessment	1	0.0
Total	19785	

(Highlighted areas are available for logging)

There are 18,533 of Koala Hubs within native forests on State Forests in NSW, with 6,280 ha (34%) of this currently protected in zones from which logging is excluded, leaving 12,253 ha (66%) available for logging.

2. Koala Hub logging 2015-18.

Within the OEH Koala Hubs the loggable areas (FMZ 4, some FMZ 3B) of compartments (or parts) were selected in Arcview where there was visual evidence on monthly Planet Explorer (www.planet.com) satellite images showing gross disturbance where logging had been undertaken. Light logging was not readily discernible. As there is no 2015 imagery and the early 2016 imagery is relatively poor, it was hard to be sure when the logging occurred in that early period, though this was refined by reference to logging history records. Thus the identification of logging undertaken in 2015 is incomplete. There was no evidence of recent logging of Koala hubs outside the north coast.

From this review of satellite images and logging history 2,546 ha of the OEH Koala hubs were identified as logged over the 4 years from 2015-2018, this is 21% of the 12,253 ha of potentially loggable Koala Hubs in native forests on State Forests (see section 4). This is an average of 636ha logged per annum, with some 430 ha of Koala hubs logged in 2018 after they were identified.

Time series of claimed selective logging (STS) of native forest in Compartment 136 Wang Wauk State Forest (Planet Explorer). (See section 3 for location of Koala Hubs).



October 2017



November 2017



April 2018



July 2018

Areas of OEH Koala Hubs identified as logged over the 4 year period 2015 to 2018.

Year Logged	Hectares
2015	528
2015-16	75
2016	560
2016-17	364
2017	513
2017-18	150
2018	355
Grand Total	2546

Note that the data for 2015 are incomplete, and the 30ha shown as logged in January 2019 is incorporated into the 2018 data for reporting.

The OEH (Rennison and Fisher 2018) report "Framework for the Spatial Prioritisation of Koala Conservation Actions in NSW" was first drafted in October 2017 and finalised in June 2018. It is assumed that the Koala Hubs were identified sometime in 2017, though it is not known when they were made available to the Forestry Corporation.

For the purpose of this review it is assumed that the Forestry Corporation should have been aware of the Koala Hubs for those areas logged after 2017. If it is assumed that half of the 2017/18 logging occurred in 2018, it can be assumed that some 430 ha of Koala hubs have so far been logged since they were identified. The harvesting plans available online show that extensive areas of Koala Hubs are proposed for logging this year.

This is most apparent with compartment 233 in Gladstone State Forest that was logged from February-August 2018 despite [strong opposition](#) from conservation groups who argued that it was important Koala habitat. The OEH Koala Hubs confirm that it was, and that this was known before it was logged.

Of the 2,546 ha logged 2015-2018, 1,283 ha (50%) is identified as high quality Koala habitat and 574 ha (23%) as medium quality habitat (Law *et. al.* 2017). There are also 590 Koala records within the logged areas of the Koala Hubs. These confirm the importance of these areas for Koalas, and emphasise that this should have been well known to the Forestry Corporation before they logged them.

Over the period assessed logging intensity on State Forests was limited by the Integrated Forestry Operations Approval (IFOA). The IFOA (5) (3) is very specific in stating "*This approval applies only to logging operations where trees are selected for harvesting using Single Tree Selection or Australian Group Selection*".

Single Tree Selection (STS) is meant to be a relatively light logging regime that limits basal area removal to <40% and requires the retention of all trees under 20 cm diameter, outside exclusion areas. In 2007 the Forestry Corporation began practicing perversions of STS where they allowed themselves to remove up to 90% of the basal area over large swathes of forest. The NSW Minister for the Environment acknowledged, through a letter written by the Environment Protection Authority (EPA 2016) on his behalf, that this type of harvesting as "*practiced by the FCNSW, is not consistent with the definition and intent of STS (Single Tree Selection) in the Integrated Forestry Operations Approval (IFOA) as well as FCNSW's own silvicultural guidelines.*"

In 2017 the North Coast Environment Council obtained data on the application of these unlawful logging regimes involving removal of 40-90% of the basal area, known as Medium, Heavy and Regeneration Single Tree Selection (STS). This data is limited to the Lower North East forestry region and only up until March 2017, so only provides a partial assessment. It is evident from Harvesting Plans that intensive logging of Koala Hubs is more widespread than indicated by these data.

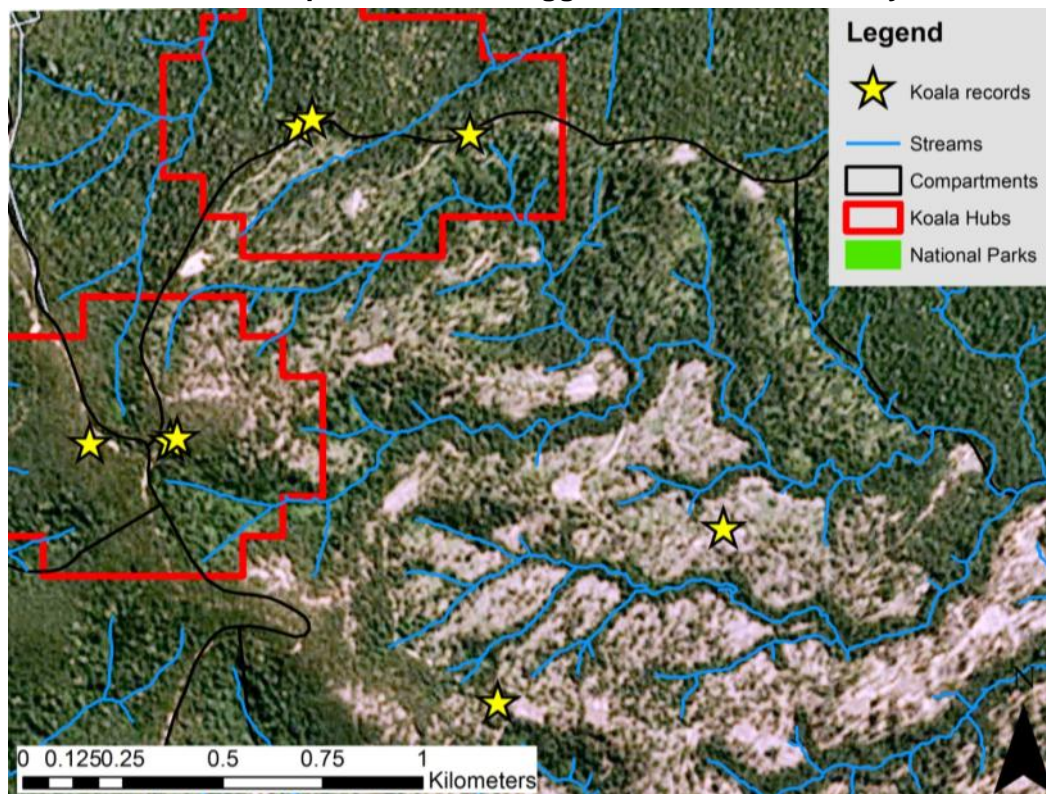
The data show that over the period 2015 to March 2017 in the Lower North East forestry region, of these logged Koala hubs 22 ha is identified as being subject to the unlawful logging regimes of Regeneration STS, 116 ha to heavy STS, and 348 ha to medium STS. This shows that many of these Koala Hubs, and surrounding areas, were subject to more intensive logging than the rules allowed, which is also proven by satellite images (see Section 3).



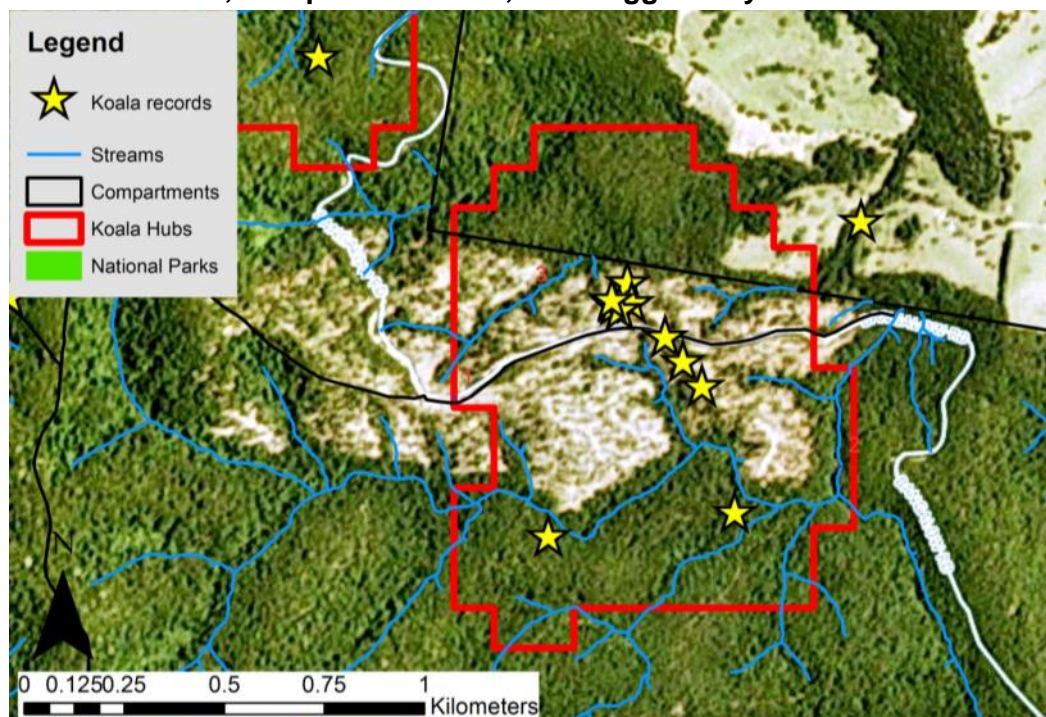
3. Examples of logging of Koala Hubs

Examples of logging of Koala Hubs. Images taken from Planet Explorer (www.planet.com) and overlaid with compartments, streams, Koala Hubs and Koala records in ArcMap.

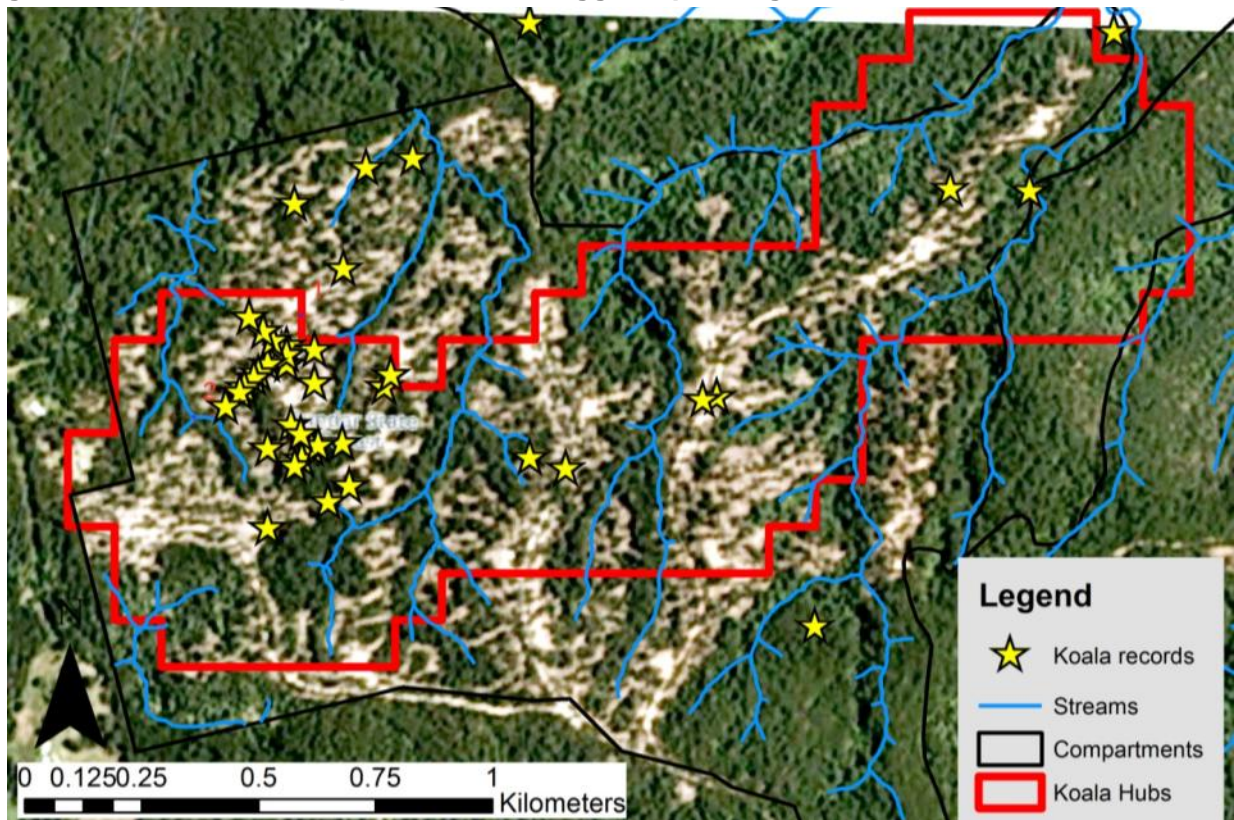
Wang Wauk State Forest, Compartment 136, Logged November 2017-July 2018



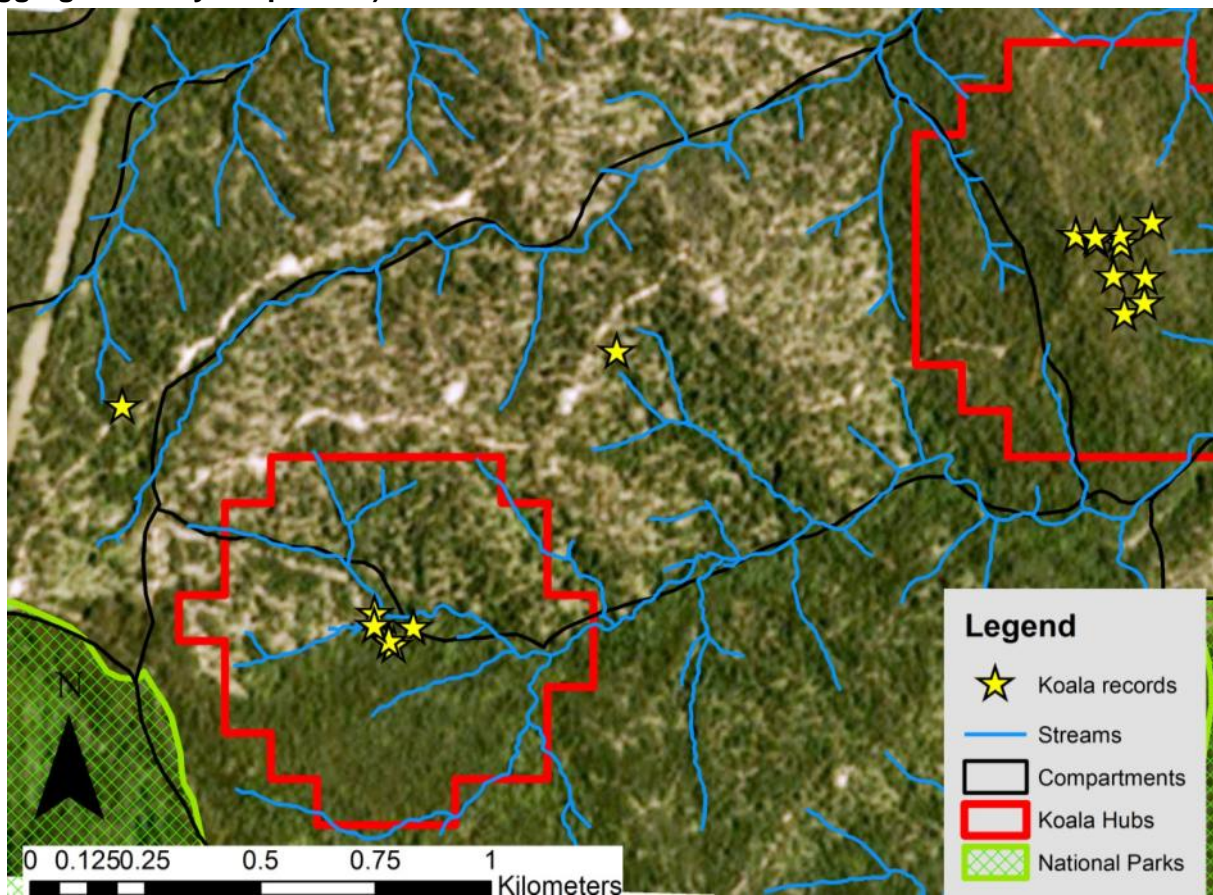
Wang Wauk State Forest, Compartments 138, 145. Logged July-December 2018



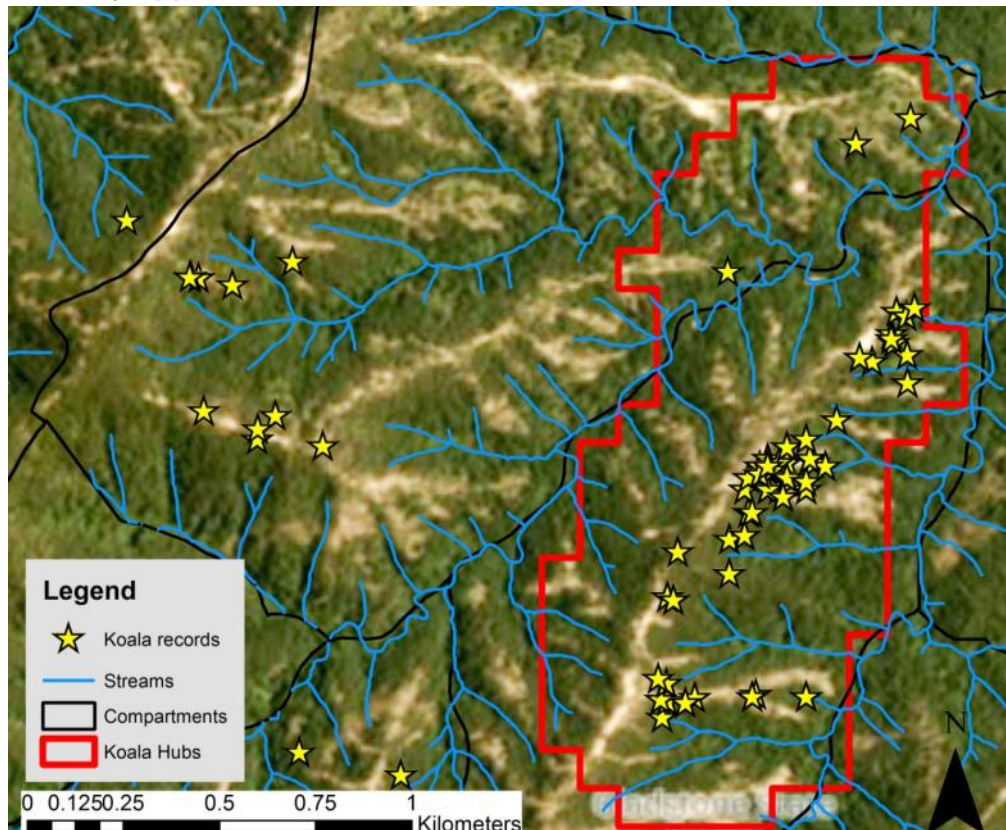
Bagawa State Forest, Compartment 780. Logged April-August 2017



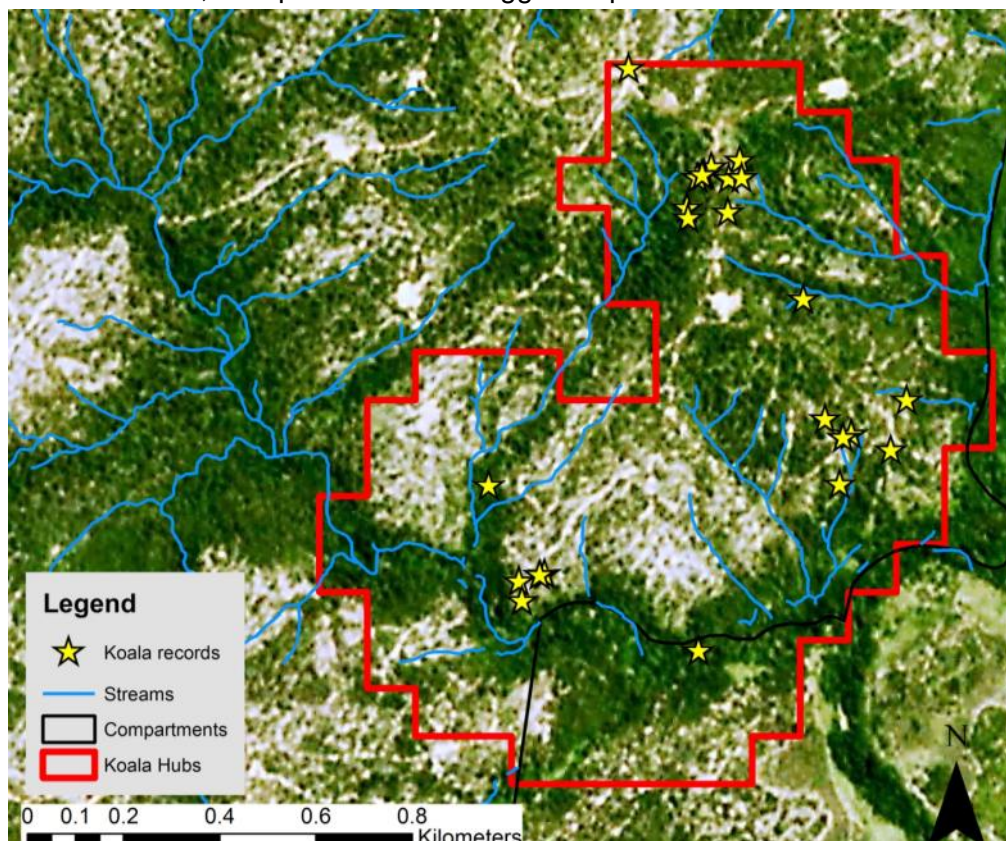
**Clouds Creek State Forest, Compartments 170, 171. Logged October 2017-April 2018
(logging currently suspended)**



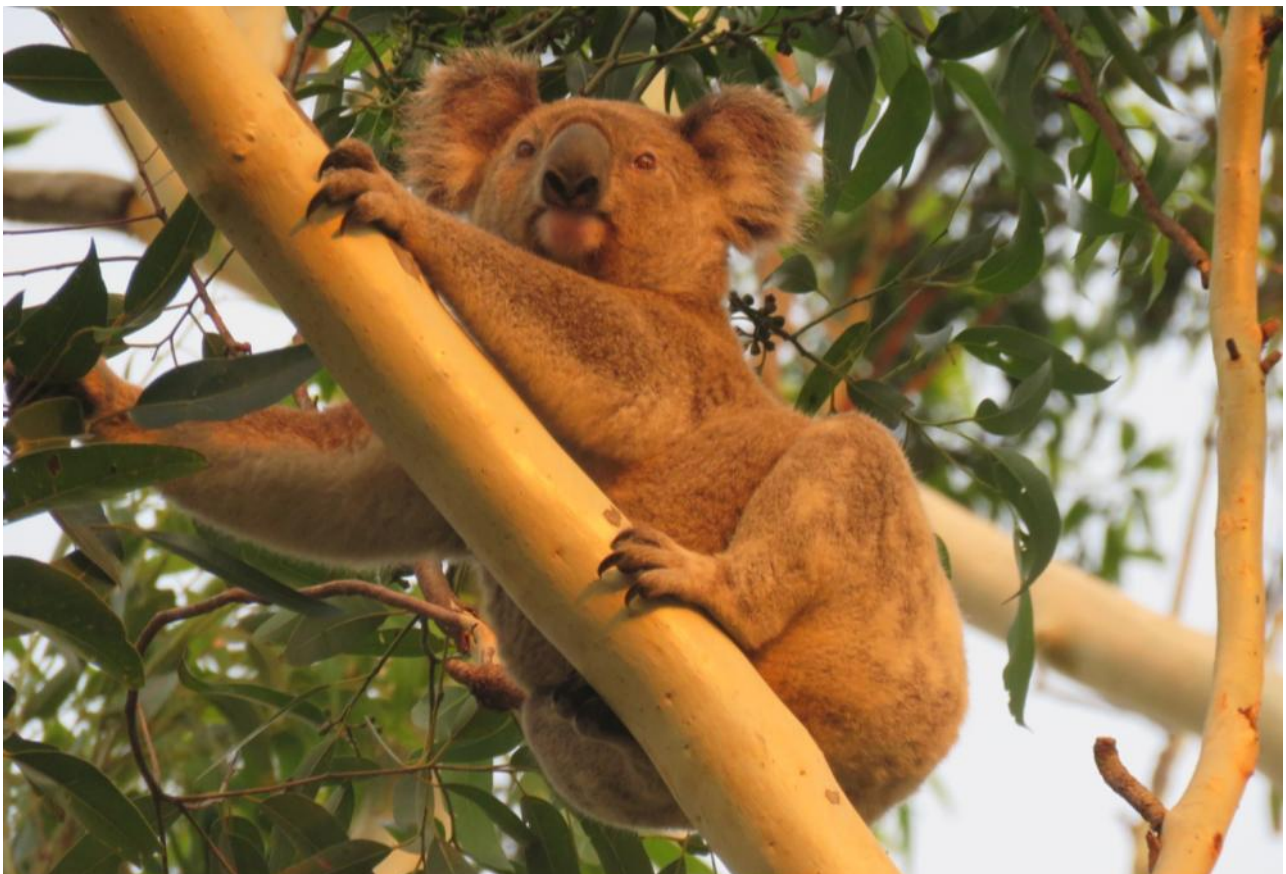
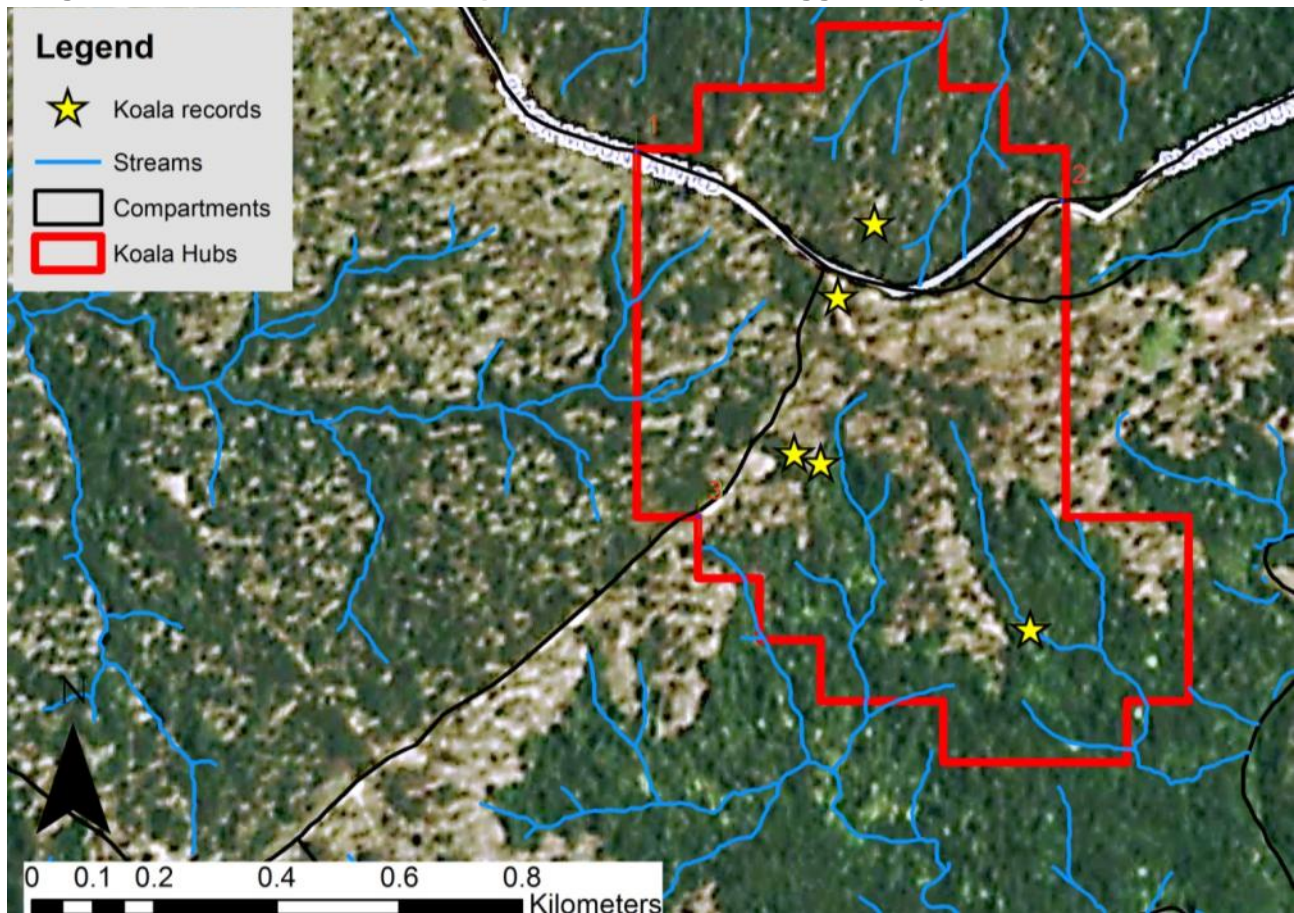
Gladstone State Forest, Compartments 231, 233. Logged June 2017-August 2018. Logging of Compartment 233 started in February 2018 after it had been identified as a Koala Hub and despite community opposition because of its obvious Koala values.



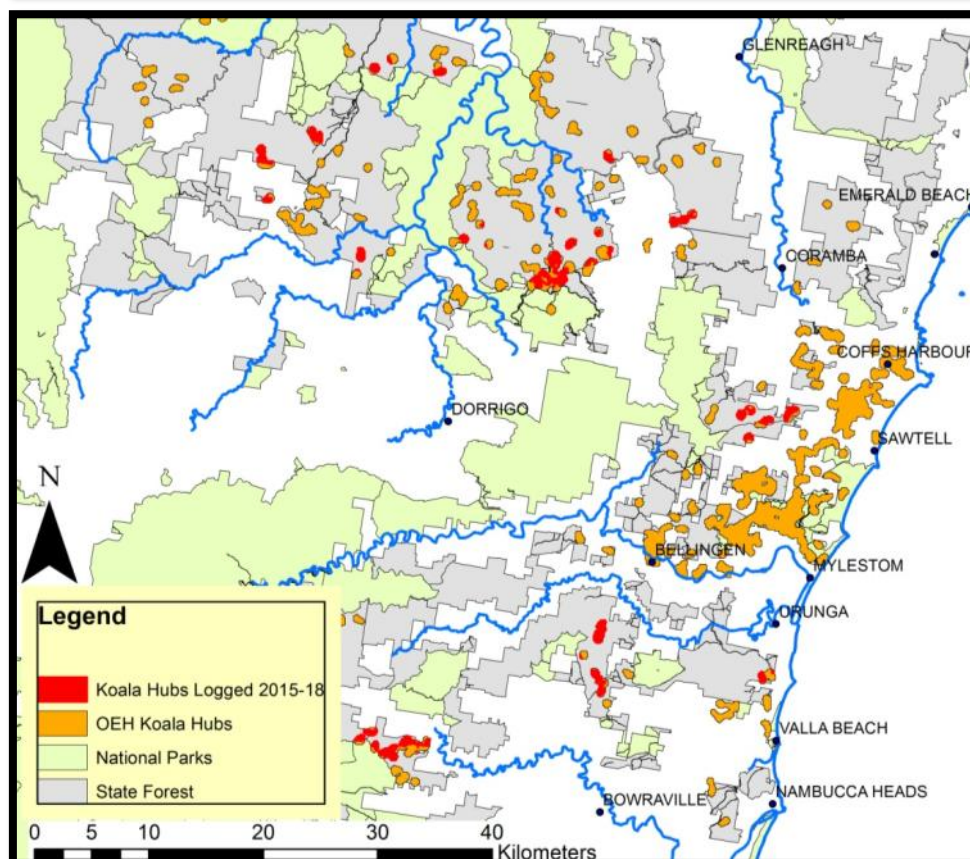
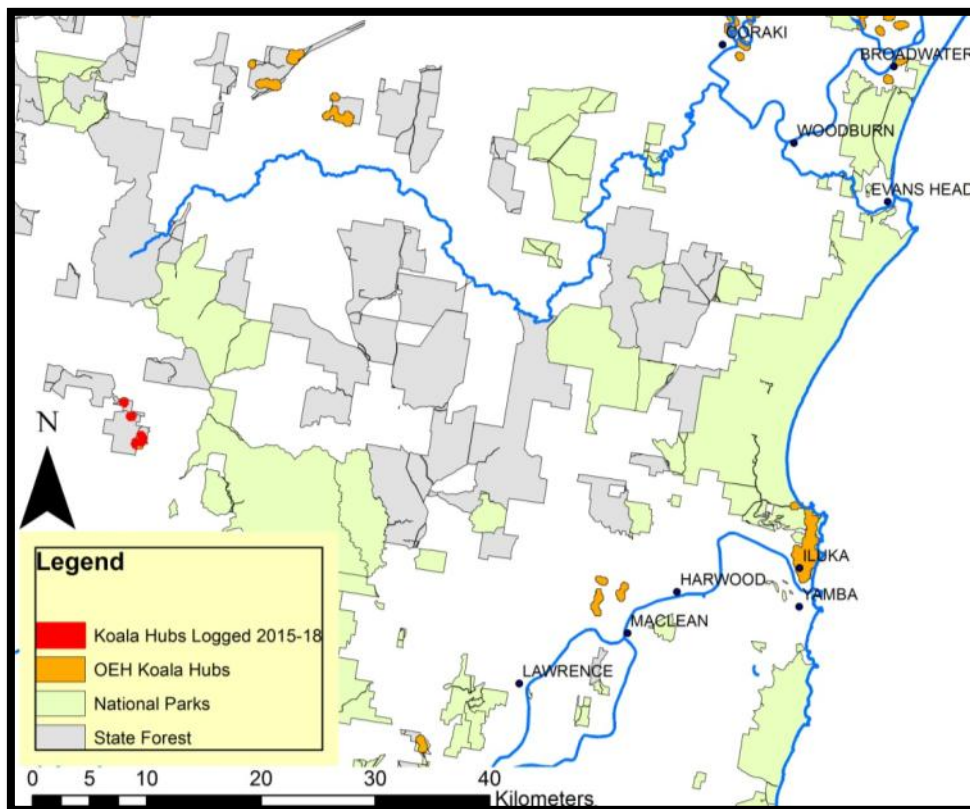
Mount Marsh State Forest, Compartment 440. Logged September 2016-November 2018.

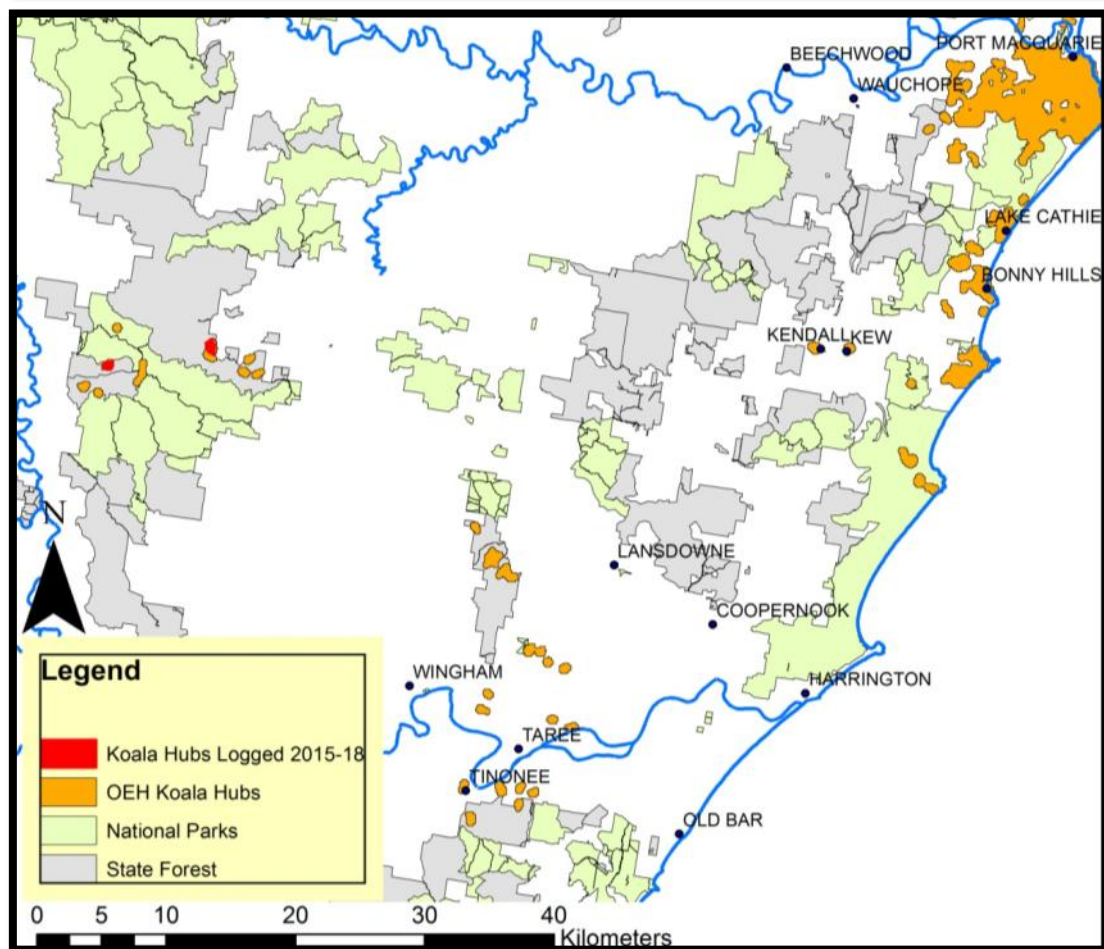
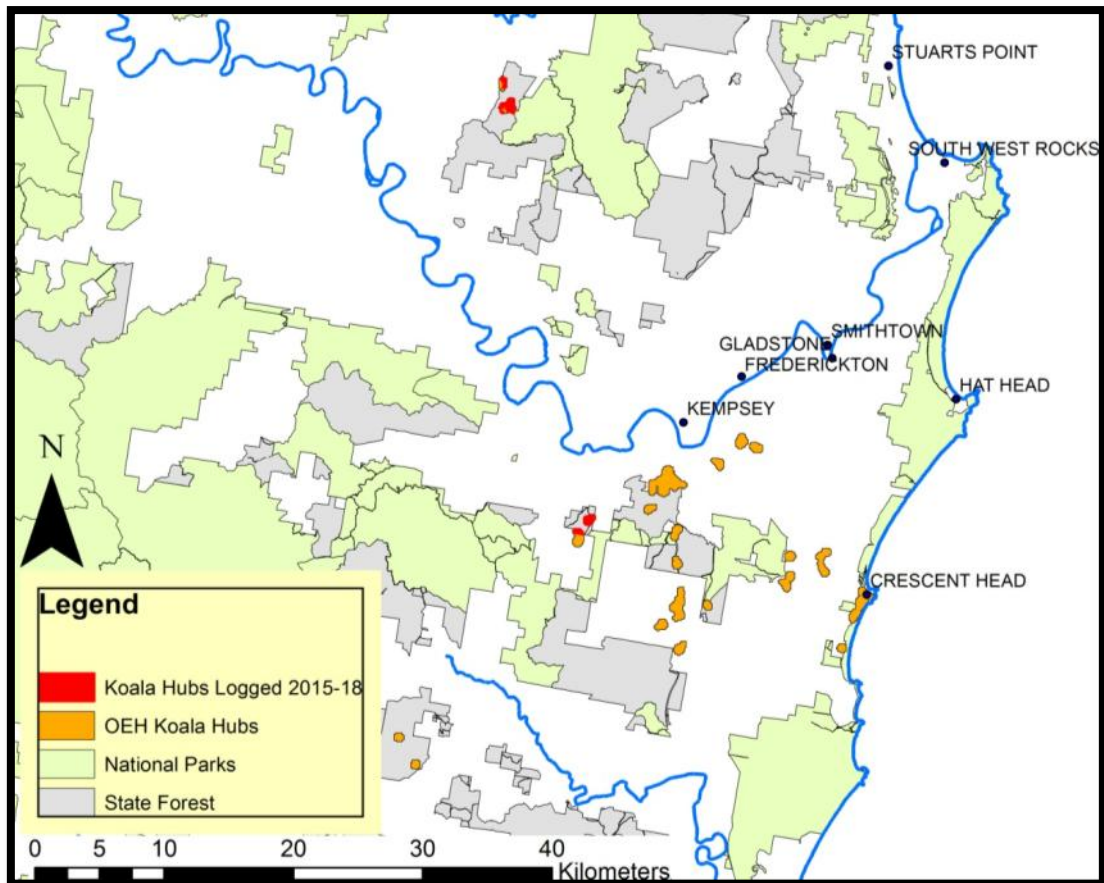


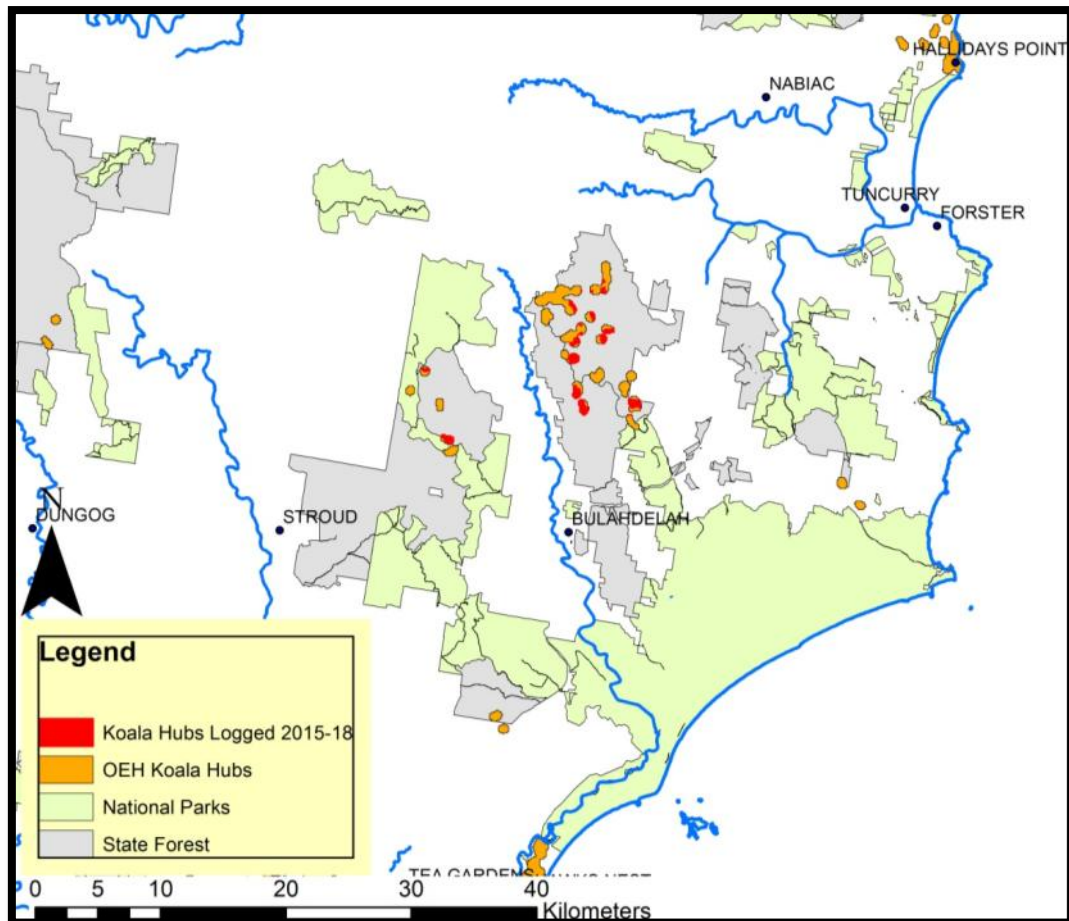
Kangaroo River State Forest, Compartments 229, 231. Logged July-October 2016



4. Maps of Forestry Corporation Logged Koala Hubs: 2015-18







5. References Cited

EPA (2016b) Letter from Gary Whytcross Director South and Forestry Environmental Protection Authority on behalf of Minister for the Environment, the Hon Mark Speakman SC MP, to Ms Orrego of Nambucca Valley Conservation Association May 5 2016.

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Rennison, B. and Fisher, M. (2018) Framework for the Spatial Prioritisation of Koala Conservation Actions in NSW, A Report for the Saving our Species Iconic Koala Project. A Report Prepared for the Office of Environment and Heritage. OEH Records Released Under GIPA 1026