

Research program plan

Koala response to harvesting in North Coast state forests

September 2020



Acknowledgment of Country

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1.0	February 2019	Research Program Plan – koala response to regeneration harvesting	D18/4687
2.0	September 2020	Revised Research Program Plan – koala response to selective harvesting	D18/4687

1 Introduction

In 2018, the NSW Government tasked the Natural Resources Commission (the Commission) to deliver independent research to better understand how koalas are responding to regeneration harvesting (referred to as intensive harvesting hereon)¹ in state forests on the NSW North Coast.

In earlier work, the NSW Chief Scientist and Engineer found that there was limited information available on the effects of forest harvesting practices on koalas, both in NSW and the rest of Australia.²

The work is delivered under the NSW Koala Strategy³ (the Strategy). The (then) Office of Environment and Heritage (OEH) allocated \$300,000 to the Commission to fund this research over 3 years.

To improve our knowledge of koala response and address the research question, the Commission will oversee an independent research program that will synthesise the findings of five research projects related to the specific research question, along with the findings of other research and forest management issues where relevant.⁴

1.1 Amended research question

Researchers began work in early 2019. However, the 2019/20 wildfires impacted significant areas of the NSW north coast, including harvest areas in state forests. Due to these extensive fires, the Forestry Corporation of NSW (FCNSW) postponed previously planned intensive harvesting operations including at the research sites. Instead, FCNSW will now apply a different type of harvesting - called selective harvesting - at the research sites.

In August 2020, the Environment, Energy and Science (EES) Koala Strategy Board asked the Commission to refocus the research program on a revised research question to:

Better understand how koalas are responding to selective harvesting in state forests on the NSW North Coast

The work will investigate and compare koala response to a 'gradient' of selective harvesting intensities now scheduled for the current research sites. The amended research question does not affect sampling or the timeframe of the research projects.

Researchers will also investigate the impact of wildfires on koala habitat and populations in north coast forests. This extension work is funded under the NSW Forest Monitoring and Improvement Program.

¹ 'Regeneration' harvesting as referred to in the NSW Koala Strategy is referred to as 'intensive harvesting' under new rules for native timber harvesting in NSW's coastal forests called the Coastal Integrated Forestry Operations Approval (Coastal IFOA). More information on regeneration harvesting and the Coastal IFOA can be found in the Commission's request for proposal and at: <https://www.epa.nsw.gov.au/your-environment/native-forestry/forestry-regulatory-reforms/coastal-ifo-remake>

² NSW Chief Scientist & Engineer (2016) *Report of the Independent Review into the Decline of Koala Populations in Key Areas of NSW*.

³ The NSW Government released the NSW Koala Strategy on 6 May 2018. The Strategy sets out the first phase of actions aiming to stabilise and increase koala populations across NSW, ensuring genetically diverse and viable populations. It provides a starting point to achieve the longer-term goal of increasing koala numbers across the state. The Strategy will be reviewed at the end of three years and revised as required. The Strategy can be found at: <http://www.environment.nsw.gov.au/research-and-publications/publications-search/nsw-koala-strategy>

⁴ This could include previous published or unpublished research, or other new research that may also occur in the same time period as this research program.

The EES Koala Strategy Board will reconsider the original research question – i.e. intensive harvesting - when the NSW Koala Strategy is reviewed in 2021.

1.2 The research

Findings from the research will provide insights on the direct responses of koalas to past and recent harvesting at the site scale, including occupancy, population density and where they move.⁵ The research will also improve understanding of habitat changes at the site-scale, for example potential changes to nutritional quality of feed trees and structure of habitat.

Chapter 2 provides more detail on each project.

Under this program, three of the projects were selected by the Commission through a request for proposals and evaluation process, supported by a panel of koala and forestry experts (**Boxes 1 and 2**). These projects will be carried out, with approved variations following the 2019/20 wildfires, by research institutions under the Commission's oversight.

In addition, the Commission will oversee the ongoing implementation of a research project currently being undertaken by the Department of Primary Industries' (DPI) Forest Science Unit, as well as considering the findings of other relevant research, including research recently published by DPI Forest Science Unit.⁶ These DPI research projects measure koala occupancy or movement in areas where regeneration harvesting has previously occurred.

The Commission considers that these research projects will provide information to help answer the research question. The projects selected through the request for proposals will build upon and complement existing research, to give an improved understanding of a broader range of koala responses to forest harvesting.

The Commission will provide a report on findings by mid-2021.

The Commission recognises there will be knowledge gaps at the conclusion of this research program. Other responses from koalas could occur as a result of harvesting activities, such as changes in health and genetic diversity over larger spatial and time scales. However, it would be difficult to deliver robust research findings across a full suite of responses within the available funding envelope and time allocated to this research program.⁷ In some cases, other responses could be assessed under a wider research and monitoring program such as required under the Coastal Integrated Forestry Operations Approval.

This plan provides an overview of the research projects and how they will contribute to the research question.

⁵ These include first- and second-level koala responses, as outlined in the Commission's request for research proposals.

⁶ Law BS, Brassil T, Gonsalves L, Roe P, Truskinger A, McConville A. 2018. Passive acoustics and sound recognition provide new insights on status and resilience of an iconic endangered marsupial (koala *Phascolarctos cinereus*) to timber harvesting. *PLOS ONE* 13: e0205075.

⁷ The Commission's request for research proposals provides more detail on potential koala response at different spatial and time scales.

Box 1: Who are the Commission's expert panel?

The Commission has engaged the following experts in koala and forest management to provide independent advice to support the design and delivery of the research program and review findings:

- **Dr Desley Whisson:** Deakin University – Senior Lecturer in Wildlife and Conservation, Centre for Integrative Ecology, School of Life and Environmental Sciences.

Dr Whisson is a terrestrial ecologist with 15 years' experience in conducting applied research on koala ecology and management. She is particularly interested in the spatial ecology of koalas including their habitat use and movements in modified landscapes. Prior to joining Deakin University in 2007, Dr Whisson held positions with the South Australian government (managing the Koala program on Kangaroo Island), the University of California (UC Davis), and the National Autonomous University of Mexico (UNAM).

- **Dr Alistair Melzer:** Central Queensland University – Adjunct Research Fellow, Koala Research CQ, School of Medical and Applied Sciences and research program leader for koala research at Central Queensland University.

Dr Melzer, a field ecologist, has worked on koalas and their habitat for over 20 years. He has provided expert and independent advice to three state governments and to the Commonwealth. Most recently, he was a member of the Queensland Government Koala Expert Panel, providing advice on the most appropriate actions to reverse declining populations and ensure long-term persistence of south east Queensland's koalas. Dr Melzer managed a multidisciplinary research team as Director of the Centre for Environmental Management from 2001 to 2006. He is currently involved in developing tools for rapid assessment of koala habitat health at a local and landscape scales.

- **Professor Patrick Baker:** University of Melbourne – Professor of Silviculture and Forest Ecology, School of Ecosystem and Forest Sciences

Professor Baker studies forest dynamics and has 25 years of experience working in temperate and tropical forests studying the impacts of past disturbances and climate variability on current structure and composition. He has previously worked at the Harvard Institute of International Development, The Nature Conservancy of Hawaii, the US Forest Service, and Monash University. Professor Baker was an Australian Research Council Future Fellow from 2012 to 2017 focussing on developing silvicultural systems to make south-eastern Australian forests more resilient to climate change.

Box 2: How were the projects selected?

A request for proposals was released on the Commission's website in October 2018. The Commission received 10 proposals and appreciates the time and interest all applicants have shown in the program. Proposals were individually evaluated against selection criteria provided in the request for proposals and ranked based on combined weighted scoring of the criteria.

The evaluation panel consisted of expert panel members and Commission representatives.

Projects were required to have clear scientific merit, be delivered by experienced and qualified researchers and be relevant to addressing the research question in the Koala Strategy. In addition, they needed to be able to be delivered feasibly within the time and funding available under the Strategy. The highest ranking proposals were then considered for their combined potential to address the research question to the best possible extent and in the most cost-effective way.

The request for proposals, including selection criteria can be found at <https://www.nrc.nsw.gov.au/koala-research>

2 What are the research projects?

The Commission will synthesise findings from the following five research projects to address the research question:

- **Three new research projects** led by researchers from the Australian National University, Western Sydney University and NSW DPI Forest Science Unit. These projects were selected by the Commission and are funded under the NSW Koala Strategy
- **One existing research project** led by researchers from NSW Department of Primary Industries (DPI) Forest Science Unit. This project is currently funded by the NSW DPI.
- **One completed research project** led by researchers from NSW DPI Forest Science Unit. This research has been published in a peer-reviewed scientific journal. This project was funded by the NSW DPI.

The research projects will study a range of koala responses to selective harvesting, including:

- direct koala responses (koala occupancy, movement, population density and diet); and
- changes to koala habitat, from which potential koala response can be reliably inferred (nutritional quality and structure of habitat).

Table 1 provides a snapshot of the projects, followed by more detail.

Figure 1 illustrates the relationship between the research projects and the variables they will measure. **Box 3** describes the synergies between the research projects in more detail.

The Commission will also consider and synthesise the findings of any other scientifically valid research that contributes to the understanding of a broader range of koala responses to forest harvesting.

The new projects will be undertaken between January 2019 and January 2021. Sites will be selected collaboratively between the researchers and the Commission in NSW North Coast state forests.

2.1 How does the amended research question impact the projects?

The amended research question does not affect sampling or the timeframe of the research projects.

Treatment sites were surveyed pre-harvest in 2019. None of these sites were impacted by the fires. They will be surveyed again in spring 2020 after selective harvesting has occurred. Data from these surveys will be compared to investigate the effect of varying harvest intensity on koalas.⁸

⁸ Selective harvesting is inherently variable and is permitted based on averaged retained basal area within a coupe being greater than or equal to 10m²/ha, although 50% of plots can be below 10m², and 25% can be below 6m²/ha. Variability in harvest intensity between coupes is also permitted, if the minimum Coastal IFOA limits for selective harvesting are met.

Table 1: Research projects comprising the Commission's independent koala research program

Research projects selected by the Commission	
1	Assessing the contribution of regenerating forests to koala nutrition using molecular and chemical faecal analysis to understand koala diet composition and quality
	<ul style="list-style-type: none">▪ Dr Ben Moore, Western Sydney University (WSU).▪ Uses DNA and chemical analysis of koala faecal pellets (scats) to understand what is actually eaten by koalas, its nutritional value and whether this is impacted by harvest history.▪ Referred to as WSU diet composition and quality analysis throughout.
2	Determining the effects of selective harvesting on habitat nutritional quality for koalas
	<ul style="list-style-type: none">▪ Dr Karen Ford, Australian National University (ANU).▪ Investigates nutritional quality of koala habitat before and after harvesting and uses known relationships between nutritional quality and koala density to predict the future potential of habitat to support koalas in harvest areas.▪ Referred to as ANU habitat nutritional quality modelling throughout.
3	Assessing the effects of selective harvesting on koala density using acoustics and faecal DNA
	<ul style="list-style-type: none">▪ Dr Brad Law, DPI Forest Science Unit.▪ Uses a grid of acoustic sensors to understand how koala density varies in the landscape in response to harvesting and with respect to specific IFOA prescriptions.▪ Referred to as DPI acoustic array and DNA survey throughout.
Completed and existing projects delivered by DPI Forest Science Unit	
4	Tracking koalas in a forestry landscape: Use of intensively harvested landscapes on the NSW North Coast
	<ul style="list-style-type: none">▪ Dr Brad Law, DPI Forest Science Unit.▪ Current research which uses GPS tracking technology to describe koala use of the post-harvest landscape and assess use of young regeneration versus different kinds of harvest exclusion areas.▪ Referred to as DPI telemetry study throughout.
5	Passive acoustics and sound recognition provide new insights on status and resilience of an iconic endangered marsupial (koala <i>Phascolarctos cinereus</i>) to timber harvesting⁹
	<ul style="list-style-type: none">▪ Dr Brad Law, DPI Forest Science Unit.▪ Research published in 2018 that used habitat mapping and acoustic recorders to survey for male koalas, focusing on occupancy and bellow rate in different timber harvesting treatments.▪ Referred to as DPI acoustic survey throughout.

⁹ Law BS, Brassil T, Gonsalves L, Roe P, Truskinger A, McConville A. 2018. Passive acoustics and sound recognition provide new insights on status and resilience of an iconic endangered marsupial (koala *Phascolarctos cinereus*) to timber harvesting. PLOS ONE 13:e0205075.

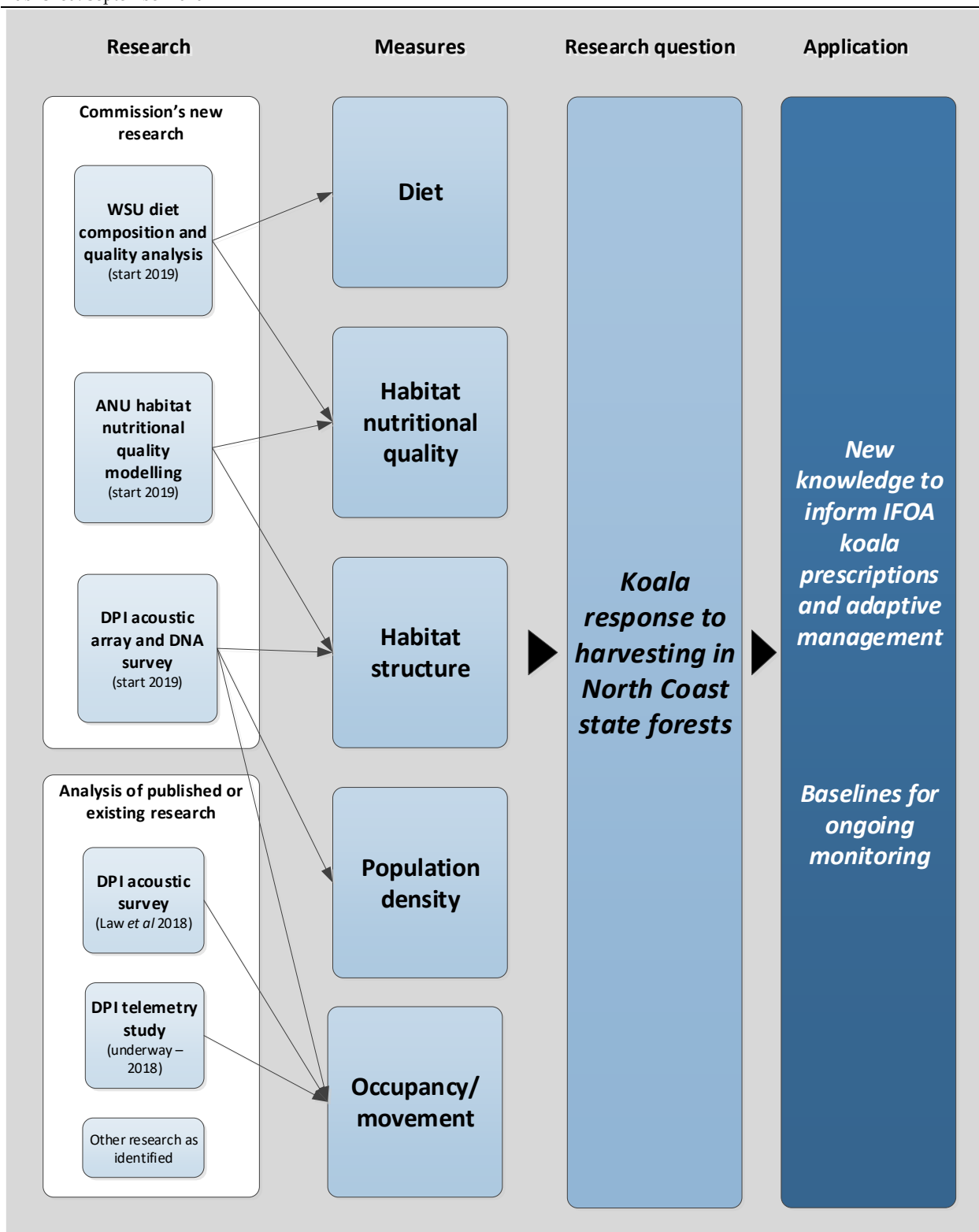


Figure 1: Measures used to address the overarching research question and application of new knowledge

Box 3: How do the research projects work together?

Overall, the research projects will determine where koalas move, how their numbers change and what they eat in response to selective harvesting, associated IFOA prescriptions and mapped exclusions areas.

More specifically:

- **DPI's acoustic array and DNA survey and their on-going telemetry study** locate and map the movement of koalas in responses to harvesting. The **acoustic array and DNA survey** will also estimate koala population density in harvest areas.
- **WSU's diet composition and quality analysis** and **ANU's habitat nutritional quality modelling** build on DPI's studies by exploring changes in koala diet and nutrition in response to harvesting. These results can be linked and compared to occupancy and movement patterns identified by DPI's studies.
- The studies of diet and habitat nutritional quality will use different data to jointly assess the availability and the accessibility of quality food to koalas. Data on habitat nutritional quality (availability) can be compared directly to data on the quality of food actually eaten by koalas (accessibility).
- Further to this, the predictive capacity of **ANU's habitat nutritional quality modelling** project will indicate the likelihood of koala population persistence in harvest areas. This is based on a recent study which found foliage nutritional quality influences koala densities.¹⁰
- All three projects will work at the same sites and use the same samples for data where possible. This will strengthen data interpretation and provide cost-effectiveness of sample collection.
- All proposals incorporate chrono-sequencing – investigating sites with no harvest history, sites just prior to harvest, just after harvest, and 5-10 years after harvest. They consider change in harvested forest through time in combination with:
 - koala occupancy and density responses (**DPI's acoustic array and DNA research**)
 - effects on diet nutritional value (**WSU's diet composition and quality analysis**)
 - whether habitat nutritional quality is influenced by stage of succession (**ANU's habitat nutritional quality**)

¹⁰ Au J., Clark R.G., Foley W.J., Marsh K.J., Moore B.D., Zdenek C.N., Possingham H.P., Youngentob K.N. (in prep). Population densities of an arboreal marsupial vary with forage quality

Diet composition and quality analysis

Western Sydney University

What is the aim of the research?

This project aims to determine if and how koala diet is affected by harvesting history and assess whether selective harvesting is likely to change the nutritional quality of koala diets, as well as determining if changes in diet affect the likelihood of koala populations persisting in harvested areas.

What will the research involve?

This project will collect faecal pellets (scats) from radio-collared koalas and targeted searches across sites with different harvest histories (no harvest and two intervals post-harvest). DNA analysis will be carried out on scats to understand what is actually eaten by koalas in these areas, its nutritional value and whether nutritional value is impacted by harvest history.

The types of trees koalas are eating at the study sites will be identified using single nucleotide polymorphism (SNP) markers. Spatial data collected from radio-collared koalas will be used to confirm the results of DNA diet analysis and identify if koalas are travelling to adjoining forest to access different food resources. The nutritional quality of koala diets will be assessed across the sites through analysis of available nitrogen which is influenced by the amount of tannin in scat samples.

How does the project contribute to the NSW Koala Strategy research question?

Research to date has told us that there are important links between plant chemical composition and the persistence of koala populations¹¹, but our understanding of what tree species koalas eat is limited. To date, our knowledge of key koala feed trees in NSW North Coast state forests is based largely on which trees they have been observed in, mostly in the daytime. This project will improve our understanding by collecting data that directly tells us what koalas eat.

The project will improve understanding on potential changes to koala habitat quality (including tree species composition and nutritional quality) and koala foraging behaviour at harvesting sites.

How will the project contribute to on-going forest management?

Results from this project can be used to inform future decision making about management, for example, what types of tree species are retained for koalas during harvesting under Coastal IFOA protocols.

Who will undertake the research?

This study will be led by Dr Ben Moore from WSU. Dr Moore is a leading researcher into koala diet and digestion, with two decades of research experience in the nutritional and chemical ecology of koala diets, including a major study of leaf chemistry in north-east coastal NSW.

¹¹ For example: Stalenberg, E., Wallis, I.R., Cunningham, R.B., Allen, C., Foley, W.J. (2014). Nutritional Correlates of Koala Persistence in a Low-Density Population. PLoS ONE 9 (12): e113930. doi:10.1371/journal.pone.0113930

Habitat nutritional quality modelling

Australian National University

What is the aim of the research?

This project will investigate how specific selective harvesting conditions on the NSW North Coast affect the nutritional quality of koala habitat and the expected effects of these changes on koala population densities.

What will the research involve?

This study will collect eucalypt leaves from sites with different forest management prescriptions (regrowth forest with different time since harvest, retained forest in harvest areas such as koala high-use exclusion zones and riparian corridors and old growth forest sites).

Samples will be analysed to understand nutritional quality using nitrogen, formylated phloroglucinol compounds (FPCs) and unsubstituted B-ring flavanones (UBFs), as these are known to influence koala feeding behaviour and population densities. An extensive existing dataset of koala density and nutritional quality from 75 sites around Australia will be used to model the effects of different harvesting scenarios on habitat nutritional quality and to predict changes in koala densities.

The effects of habitat structure on nutritional quality will also be considered using structural data recorded during sampling, including tree diameter (DBH) and the spatial characteristics of retained browse trees in the landscape (for example, whether trees are clumped or scattered).

How does the project contribute to the NSW Koala Strategy research question?

Habitat nutritional quality is an important driver of koala densities.¹² As such analysing the nutritional quality of eucalypts at specific locations (such as at sites with different harvesting prescriptions, species compositions and time since harvest) is a good tool to determine and compare the value of these habitats for koalas. In addition, statistical modelling can be applied to nutritional data to show how the removal (harvesting) or addition (regrowth) of trees in the landscape alters habitat nutritional quality and the expected effects of any changes on koala population densities over time. The modelling can also be used to assess the effectiveness of prescribed conditions in the Coastal IFOA.

How will the project contribute to on-going forest management?

The data and models generated from this study can be used beyond the life of the study to provide rapid and cost-effective assessment of site nutritional quality and the impacts of harvesting scenarios, which may be used to complement harvest planning.

Who will undertake the research?

This study will be led by Dr Karen Ford from ANU who has over two decades of experience studying nutritional ecology of marsupial herbivores. The project team has pioneered the science behind linking eucalypt leaf nutritional quality to koala feeding and population density at multiple scales.

¹² All participating researchers for this project were recently involved in research demonstrating that foliage nutritional quality at 75 sites across Australia influences koala densities. This study is currently in preparation as the following manuscript:
Au, J., Clark, R.G., Foley, W.J., Marsh, K.J., Moore, B.D., Zdenek, C.N., Possingham, H.P., Youngentob, K.N. (in prep). Population densities of an arboreal marsupial vary with forage quality.

Acoustic array and DNA survey

DPI Forest Science Unit

What is the aim of the research?

This project will estimate koala population density before and after selective harvesting, as well as on sites with a range of harvesting histories. This will be the first project to investigate this in NSW North Coast state forests and will improve our understanding of the potential effects of selective harvesting on koalas and if and how the different types of environmental protections under the Coastal IFOA are used by koalas.

What will the research involve?

The project will use arrays of 25 acoustic sensors in a Before-After-Control-Impact (BACI) experimental design to record male koala bellows and describe how male koalas are moving in the landscape. Grid-based maps of estimated male koala density across each array will also be produced from the data following the methods of Chandler and Royle.¹³ Additional arrays will be set up at sites with previous (5 to 10 years) heavy harvesting to assess koala density at the early stages of regeneration and in surrounding exclusions. Density maps will be overlaid with harvesting maps to assess overlaps between harvest areas, environmental protection areas, and koala density.

Data on male bellows will be complemented by DNA analysis of scats, which will be used to identify the number of unique individuals in the study area and their sex, and can be used to produce an independent assessment of both male and female density that can be compared with 'minimum' estimates derived using acoustic arrays.

A rapid vegetation assessment will also be carried out around each acoustic sensor to record browse tree cover and basal area. This will be used to assess changes in tree species composition after harvesting, once regenerating trees have established. Densities of browse trees will also be compared to koala density to identify the strengths of any relationship.

How does the project contribute to the NSW Koala Strategy research question?

Estimates of changes in koala density will deliver a direct measure of koala response to selective harvesting. This will contribute greatly to the interpretation of how selective harvesting affects koalas and how various forms of logging exclusion mitigate impacts.

How will the project contribute to on-going forest management?

Once sensor arrays have been established, continued monitoring of koala movement and density can occur as part of ongoing forest monitoring, in order to track changes in koala response over the longer term as the forest continues to regenerate. Long term data can contribute to adaptive management and continuous improvement of harvest prescriptions under the Coastal IFOA.

Who will undertake the research?

The study will be led by Dr Brad Law from DPI who has modelled the habitat for koalas across the NSW North Coast and recently led research using acoustic surveys to estimate koala occupancy in relation to harvesting. He has also undertaken a preliminary trial of the proposed method in collaboration with OEH in the Southern Highlands which, though not complete, has produced encouraging results. Dr Law has a detailed understanding of harvesting practices on the NSW North Coast from previous research to investigate the response of biodiversity to forestry practices.

¹³ Chandler, R. B. and Royle, J. A. (2013). Spatially explicit models for inference about density in unmarked or partially marked populations. *The Annals of Applied Statistics* 7(2): 936-954.

Telemetry study

DPI Forest Science Unit

What is the aim of the research?

The project will describe koala use of the post-harvest landscape and assess the relative use of different kinds of harvest exclusion areas (e.g. riparian zones vs ridge habitat and use of retained clumps of trees and isolated trees within net harvest areas), and also the extent to which young regeneration post-harvest is used.

What will the research involve?

Use of local landscapes by koalas will be monitored by fitting koalas with GPS collars that will track their movements each day for up to one year.

All captured koalas will be screened by the Port Macquarie Koala Hospital to assess their health status for disease, age and sex cohorts, morphometric data, genetics and breeding status of the focus population.

All koalas will be microchipped and ear-tagged for permanent identification.

How does the project contribute to the NSW Koala Strategy research question?

Research on koala movements will assist in revealing how exclusion areas and regeneration are used, and in optimising prescriptions for the species.

How will the project contribute to on-going forest management?

Better information on habitat use at the tree level will help inform where and how browse trees should be retained and what size classes are preferred. For example, browse trees could be retained in clumps or dispersed across the landscape and either on lower slopes or across a range of topographic positions.

Who will undertake the research?

The study will be led by Dr Brad Law from DPI who has previously led research projects in which acoustic surveys have been central to estimating koala occupancy in relation to timber harvesting. Dr Law has also modelled the habitat for koalas across north-east NSW. Dr Law's detailed understanding of the various timber harvesting practices that are employed in NSW comes from his extensive research to investigate the response of different biodiversity to forestry practices.

Acoustic survey¹⁴

DPI Forest Science Unit

What was the aim of the research?

The project investigated the effectiveness of retention forestry, which excludes harvesting from parts of the landscape, for koalas. It also provides an assessment of the population status of koalas in the hinterland north-east forests of NSW based on occupancy estimates.

What did the research involve?

This project used acoustic sensors to record male koala mating bellows across forested areas, in both state forests and national parks, in north-east NSW. Recordings of koala calls were used for koala occupancy modelling and population assessment.

Surveys were completed over three years at 171 sites in a range of forested landscapes, including harvested areas with different harvesting intensities and time since harvest, koala high-use exclusion areas and old growth forest.

What did the research find and conclude?

The study found that habitat disturbance affects koala occupancy less than other factors, including elevation and browse tree cover. Koalas were found at high rates of occupancy and with similar bellow rate across different timber harvest intensities and time since harvest in the study area. The study concludes that koalas have some resilience to harvesting, most likely because a patchwork of preferred habitat is retained during forestry operations.

The study also revealed a widespread and large, but likely low density, male koala population in north-east NSW.

How will the project contribute to the NSW Koala Strategy research question?

The project found that harvest exclusion in the landscape and maintaining a mosaic of forest types and disturbance history is important for koalas in the north-east forests. Further research on koala movements would assist in revealing how exclusion areas and regeneration are used by koalas, and in optimising IFOA prescriptions for the species.

¹⁴ Law BS, Brassil T, Gonsalves L, Roe P, Truskinger A, McConville A. 2018. Passive acoustics and sound recognition provide new insights on status and resilience of an iconic endangered marsupial (koala *Phascolarctos cinereus*) to timber harvesting. PLOS ONE 13:e0205075.

3 When will findings be delivered?

Under the NSW Koala Strategy, the Commission is required to provide a final report of findings to the Premier and Minister for Environment in early 2021. The Commission will also be routinely reporting on progress to OEHL, as required under the Koala Strategy.

In addition to the final report, information on the research program and findings will be shared through:

- updates to the Commission's koala research webpage (<https://www.nrc.nsw.gov.au/koala-research>)
- updates to the Commission's koala research mailing list (you can sign up to stay in touch on the webpage)
- annual reports on project progress and any findings published by the Commission on the webpage
- publishing of peer reviewed journal papers by researchers.

To assist in sharing knowledge and disseminating findings from research, the Commission will convene an annual forum with all researchers under the program. These forums will be used to share and discuss findings, address issues and identify any opportunities to improve the project delivery.