



Leadbeater's Possum Detection Report

VicForests logging coupe: 288-517-0005 'Fruit Fly' Snobs Creek Road, Rubicon State Forest

Report of a Leadbeater's Possum (*Gymnobelideus leadbeateri*) detected at VicForests scheduled logging coupe 288-517-0005 off Snobs Creek Road.

Abstract

A nocturnal survey was undertaken by WOTCH on the morning of the 20th of November 2020 off Snobs Creek Road at VicForests scheduled logging coupe 288-517-0005. Throughout this nocturnal survey a critically endangered Leadbeater's Possum (*Gymnobelideus leadbeateri*) (LbP) was identified using a thermal imaging camera and recorded using a hand-held video camera. This report details the methods, results, discussion, and conclusion following this detection. Among other things, we conclude that VicForests must protect this LbP detection with a 1km Special Protection Zone (SPZ) buffer around the sighting, as recommended by the expert scientists at the Australian National University (ANU).

Introduction

In 2015, under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the conservation status of the LbP was transferred from the endangered category to the Critically Endangered category. Within the *Leadbeater's Possum Conservation Advice 2015* document¹ it states that one of the primary threats to the species is "habitat loss and ongoing deterioration of habitat quality", it then states that this continues to occur through a number of causes including "Loss through harvesting and lack of habitat quality in regrowth forest". The Mountain Ash (*Eucalyptus regnans*) forest that the LbP depend upon are listed on the International Union for the Conservation of Nature's (IUCN) Red List of ecosystems as critically endangered². The assessment to determine the critically endangered status indicated that the ecosystem had a $\geq 92\%$ chance of ecosystem collapse by 2067.

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¹ <http://www.environment.gov.au/biodiversity/threatened/species/pubs/273-conservation-advice.pdf>

² <https://iucnrl.org/assessments/>

Method used: Active search

LbP survey (active search): 20/11/2020

Survey technique:

- Active search using Thermal Imaging Camera.
- Spotlighting with red-light torches
- Digital camera video footage for recording species observed/identified.
- Global Positioning System (GPS) for recording location of species detection records.

Method used:

1. During a nocturnal survey, a small arboreal mammal was detected using the thermal imaging camera.
2. A hand-held red spotlight was used to illuminate the arboreal mammal for visual identification.
3. Using a video recorder under the normal settings and under the 'night shot' mode, footage of the LbP was recorded.
4. Shortly after the LbP individual left the area.
5. The active search survey was concluded shortly after.

Results

Results 1. Figures 1a-c, still images of the sighting of the LbP detected and the location coordinates.



Figure 1(a). Still image of the LbP detected on the morning of the 20th of November 2020, captured from Figure 2 (attached video).



Figure 1(b). Second still image of the LbP detected on the morning of the 20th of November 2020, captured from Figure 2 (attached video).



Figure 1(c). Still image of the LbP detection location coordinates reading “55 H 405843 5861996 (UTM/Zone 55H)”, captured from Figure 2, (attached video).

Results 2. Figure 2 (attached), video file excerpt of the sighting of the LbP.

Results 3. Figure 3 (attached), GPX file with a GPS waypoint recording for the detection of the LbP.

Results 4. Figure 4a overview map and Figure 4b LbP detection map.

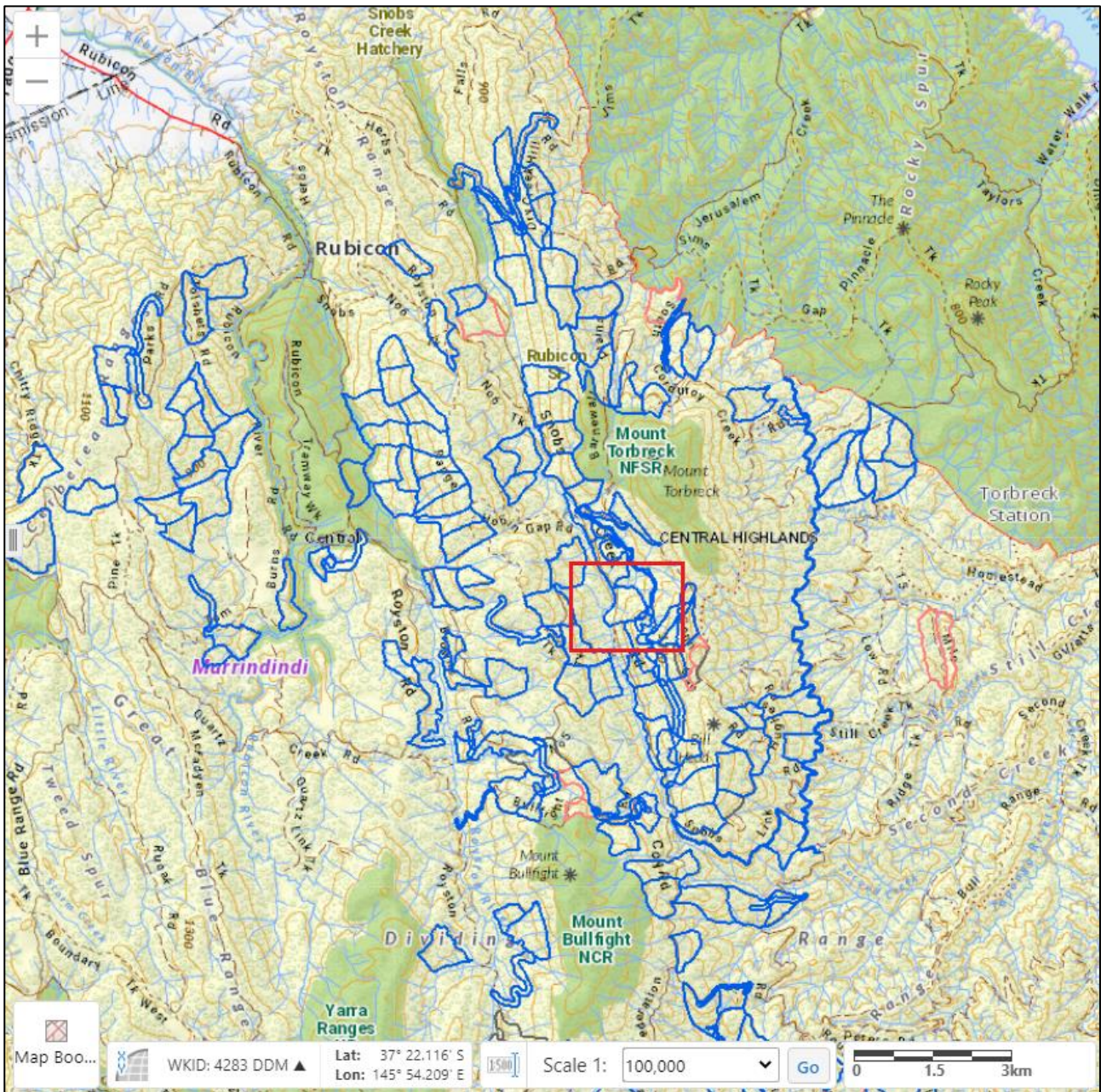


Figure 4a. showing VicForests logging coupe 288-517-0005 (red box) location overview. Detail from: DELWP's 'Forest Information Portal' <https://maps.ffm.vic.gov.au/fip/index.html?viewer=fip>. Site accessed on the 24th of November 2020.

Watch Leadbeater's Possum (LbP) detection location with mandatory 200m buffer (dashed light green circle) and recommended 1km buffer (dashed dark green circle). VicForests logging coupe 288-517-0005 along Snobs Creek Road.

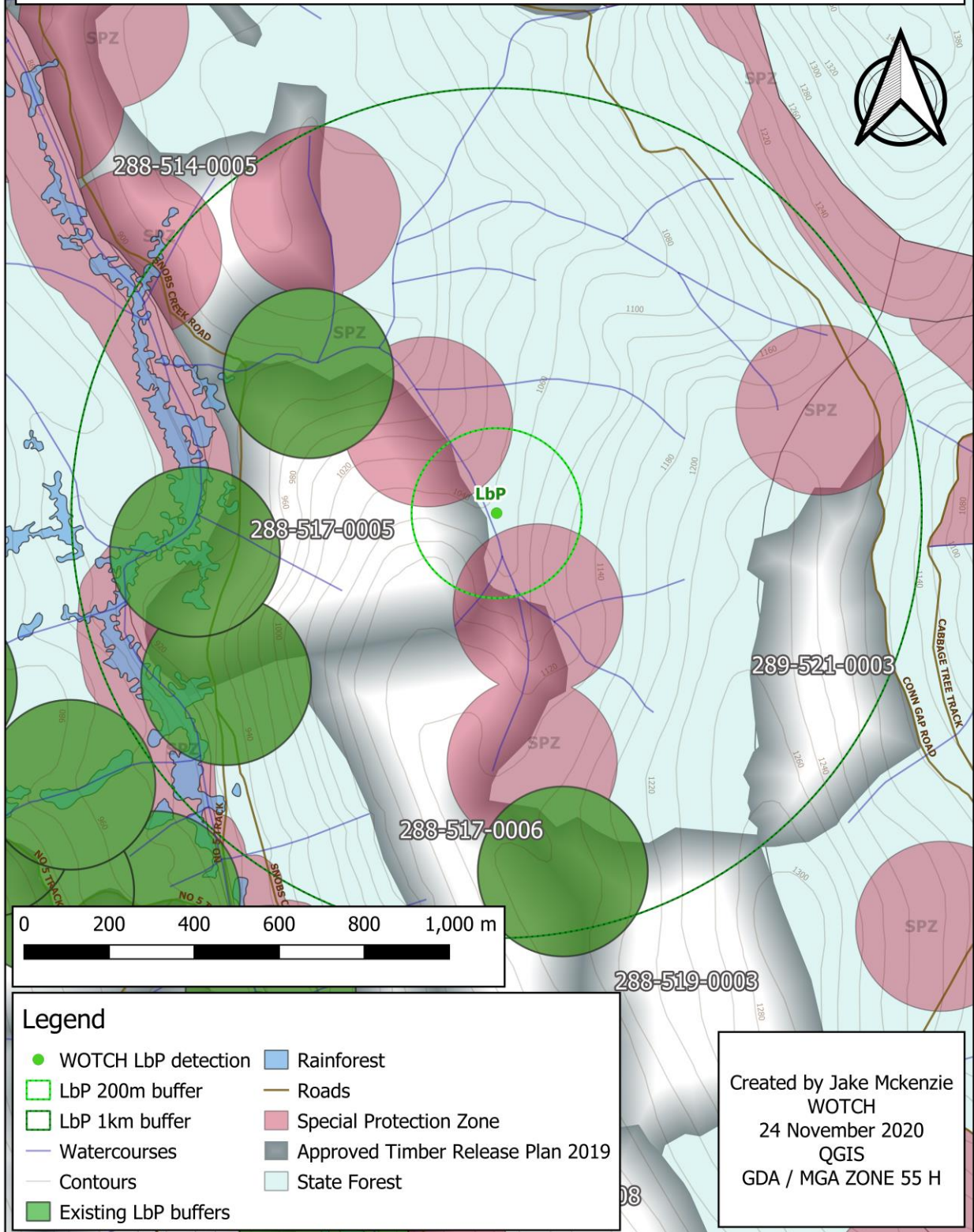


Figure 4b. Map of LbP detection (central green dot) with 200m buffer (dashed light green circle) and 1km buffer (dashed dark green circle) at VicForests logging coupe 288-517-0005 along Snobs Creek Road.

Discussion

Mandatory prescriptions

It is mandatory for VicForests or any other organization undertaking timber harvesting operations within state forest of Victoria to comply with the *Code of Practice for Timber Production 2014* (the Code). The *Management Standards and Procedures for timber harvesting operations in Victoria's State Forests 2014* (the Management Standards) is an incorporated document to the Code, and the *Planning Standards for timber harvesting operations in Victoria's State forests 2014* (the Planning Standards) is an appendix to the Management Standards. Together these documents outline the mandatory prescriptions that VicForests must comply with when undertaking logging operations throughout Victoria.

The following excerpt from the Planning Standards document under Table 4 on page 39 outlines the Zoning management actions to be taken when LbP individuals are identified within the field.

Excerpt 1

FMA	Common name	Scientific name	Zoning management actions
Central Highlands MAs	Leadbeater's Possum colony	Gymnobelideus leadbeateri	Establish a SPZ of 200 m radius centred on each verified Leadbeater's Possum colony.

VicForests must establish a 200m radius SPZ over each verified LbP colony. SPZs are managed for particular conservation values and the Code states that 'Timber Harvesting operations are excluded from SPZs'.

Recommended prescriptions by expert scientists at the Australian National University

The following prescriptions relevant to the protection of the LbP and their habitat were recommended by David Lindenmayer, David Blair, Lachlan McBurney and Sam Banks from the Australian National University in their paper produced in July 2013; *New Restoration Forest Management Prescriptions to conserve Leadbeater's Possum and Rebuild the cover of Ecologically Mature Forest in the Central Highlands of Victoria*.³

Prescription 2 – Protection of recorded locations

2.1 All locations where Leadbeater's Possum has been recorded present in the past 15 years will be protected by a 1 km buffer from which logging (both clearfell and thinnings) is excluded.

Prescription 3 – Protection of Hollow-bearing Trees

3.1 Each hollow-bearing tree (whether living or dead) will be surrounded by a buffer of unlogged forest measuring 100 m in radius.

³ Lindenmayer, D. B., Blair, D., McBurney, L., and Banks, S. (2013b). *New Restoration Forest Management Prescriptions to Conserve Leadbeater's Possum and Rebuild the Cover of Ecologically Mature Forest in the Central Highlands of Victoria*. Fenner School of Environment and Society Report, The Australian National University, Canberra. Version 2. July 2013.

3.3 All trees 100 or more years old should be protected and surrounded by a buffer of unlogged forest measuring 100 m in radius.

Prescription 5 – Protection of Streamside Buffers

5.1.1 Streamside buffers will be widened to a minimum of 100 m either side of a stream, whether permanent or temporary/seasonal.

Prescription 6 – Silvicultural System and Coupe Design

6.1.1 Variable retention harvesting methods will replace clearfelling in Victorian montane ash forests from 1st January 2014.

6.1.2 Clearfelling methods will not be employed after 31st December 2013.

6.4.1 Regeneration burns will be of low intensity and low severity.

6.4.2 During regeneration burns, all living and dead hollow-bearing trees will be protected with a 100 m buffer as outlined in Prescription #3 above.

Conclusion

The following conclusions have been made following the detection of a LbP during a nocturnal survey undertaken at VicForests logging coupe 288-517-0005 on the morning of the 20th of November 2020:

1. A critically endangered LbP was detected at location coordinates 55 H 405843 5861996 (UTM/Zone 55H) off Snobs Creek Road within the Rubicon State Forest.
2. The Planning standards, an appendix document to the Code, states that a 200m radius SPZ must be established around each verified LbP colony (see Excerpt 1, pg 6).
3. As recommended by the expert scientists at the Australian National University (ANU), VicForests must protect this LbP detection with a 1km SPZ buffer (see Prescription 2 – Protection of recorded locations, pg 7) around the sighting if the species is to have any chance of persisting into the future.
4. Further LbP surveys, using either the active search thermal imaging technique, stag-watching technique, or the remote camera-trap setup technique, are required to adequately identify the presence of other LbP individuals in the area.

