

Question from Mr Bourman MLC:	Response
<p>1. Ongoing loss of habitat - an exact split of the loss due to logging and due to fire.</p>	<p>Leadbeater's Possum is currently known from the Central Highlands with an isolated lowland population at Yellingbo in the Yarra Valley. It mainly occurs in Mountain Ash forest as well as adjacent areas of rainforest and riparian thickets. It also occurs in Snow Gum woodlands to a lesser extent. Within the Mountain Ash forests, both old and hollow bearing trees and dense regrowth are important in providing nesting and foraging habitat respectively.</p> <p>There are very few pockets of undisturbed ash forest (area that has not been either burnt or logged since 1900) remaining in the Central Highlands. Some areas of forest will have been subject to both bushfire and harvesting over the last century.</p> <p>The 1939 bushfires burnt extensive areas of ash forest in the Central Highlands. This will continue to impact on availability of suitable nesting habitat for Leadbeater's Possum over the next two to three decades.</p> <p>In addition, more recent bushfires impact on the availability of foraging habitat. The most significant of these is the 2009 bushfires, which impacted a total of 34 per cent (68,000 hectares) of the ash forest and Snow Gum woodland habitat within the range of Leadbeater's Possum in the Central Highlands. This included 45% of the area protected from timber harvesting in reserves that were burnt in the fires.</p> <p>Since 1939, 40,200 hectares of ash forest has been logged in the Central Highlands.</p> <p>Bushfire and timber harvesting do not necessarily cause a permanent loss of habitat. In its regeneration growth phase, both following timber harvesting or fire, ash forest can provide excellent foraging habitat for Leadbeater's Possum including due to the natural establishment of acacia regrowth that is important for connectivity for the possum. However, if sufficient, suitable nest hollows are lacking, regrowth forest will not support Leadbeater's Possum. Timber harvesting conducted on an 80-year rotation precludes the development of nest hollows. If severe bushfires occur in the same place more frequently than every 150 to 200 years this will also reduce the abundance of hollow-bearing trees.</p>
<p>2. How many colonies existed when the 200 m SPZ was reviewed?</p> <p>3. If 12% of the state had fires, mostly in the east, can I get clarification of how much of the states east is actually logged as a percentage of the state?</p>	<p>Using the figures presented in the 200-review report, there were 495 colonies within State forest (GMZ/SMZ) as of 30 Jan 2017 (96 of these were existing records since 1998, with 340 new colonies located since 2014 resulting from the intensive surveying). There were an additional 59 colonies within parks or SPZs.</p> <p>Victoria's State forests cover 3.14 million hectares. Timber harvesting is permitted within a gross area of around 2.39 million hectares of State forest, of which 1.82 million hectares is in the east of the state. After accounting for conservation, operational and commercial</p>

	<p>requirements, 490,000 hectares of State forest in the east of Victoria is available and suitable for timber production.</p> <p>VicForests currently harvests around 1,000 hectares of ash and 2,000 hectares of mixed species annually in eastern Victoria. This represents less than 1% of the area of State forest that is available and suitable for commercial activity and only 0.12% of the total State forest area.</p>
<p>4. If fire is a great, if not greatest risk to the LBP, how will a new national park fix that as opposed to SPZ.</p> <p>5. The habitat for the LBP is ash and snow gum. What is the spread of snow gum in public lands to the east of the state?</p> <p>6. What is the spread of ash in the east of the state?</p>	<p>There is no significant difference in the risk posed by bushfire between national parks and special protection zones per se; differences in longer-term fire risk tend to relate to forest age and to topographic position, including slope, aspect and elevation.</p> <p>Snow Gum Woodland extends from Mt Baw Baw and Lake Mountain eastwards to the NSW border in north-east Victoria and far East Gippsland. Much of this habitat is outside the range of Leadbeater's Possum.</p> <p>Ash forests (including forests dominated by Mountain Ash, Alpine Ash, Shining Gum and Errinundra Shining Gum) occur from Mt Dandenong eastwards to the NSW border in north-east Victoria and far East Gippsland. They are most extensive in the Central Highlands, East Gippsland and on higher rainfall sites with deeper soils on the slopes of the Great Dividing Range. Much of this habitat is outside the range of Leadbeater's Possum.</p>
<p>7. Is the potential future habitat mentioned where possums may be found or where possums may migrate to later.</p> <p>8. If only 6 - 10% of central highland as likely to have LBP have been surveyed, is it reasonable to extrapolate that the number that would be found when a fulsome investigation is done will increase by a very considerable number? What's the predicted number?</p> <p>9. The review of the LBP EZ mentions that there is only limited data available for national parks and such, what is being done to address that shortcoming and what is the expected outcome of the search?</p>	<p>Potential future habitat refers to areas of forest that, in the absence of further disturbance, may develop the features that Leadbeater's Possum requires; whether they become occupied will depend on possums being able to recolonise the habitat at that stage.</p> <p>As only a small percentage of the potential area where Leadbeater's Possum may occur has been surveyed, it is likely that if further surveys were undertaken, more possums would be found. It is not possible to determine how many more would be found as this would depend on the amount and location of the surveys.</p> <p>The initial focus of the targeted surveys was on areas available for harvesting that were most likely to support possum colonies in accordance with the LPAG recommendations; in the past year, surveys were extended to other areas, including National Parks and Special Protection Zones; although there was more sampling in State forest reflecting the higher proportion of potential LBP habitat within this land tenure. Possums were found in all areas. Further survey work within the parks estate would provide greater information on the distribution and abundance in parks, however there is currently no funding for broad-scale surveys across parks.</p>

Question from Ms Dunn MLC:	Response
1. Can you explain why a sighting of one animal (Leadbeater's Possum) constitutes a colony of Leadbeater's Possums?	Leadbeater's Possum are territorial, colonial animals with colonies typically up to six individuals (although there are occasional records of up to 12 individuals). Colony members defend their territory from adjacent colonies. Therefore, even if only one individual is observed, it will be part of a larger colony.
2. Given animals aren't tagged is it possible that sightings of Leadbeater's Possums could be the same animal in a different part of the forest?	We know from radio-tracking studies that Leadbeater's Possum territories are typically about 3 ha in size (equivalent to a circular area 100 m in radius, although territories could be more irregularly shaped). All individuals of the colony are likely to stay within this area. The exception would be young animals dispersing to find new areas to occupy but this happens infrequently (e.g. once in an individual's life time). The possibility that nearby sightings could be of the same animal is accounted for in the establishment of the 200 m radius exclusion zones, whereby a new sighting within 200 m of an existing record is considered to be a duplicate. Animals located more than 200 m away are most likely to represent a different colony.
3. Do you agree with the summary of the academic literature that says a near-complete cessation of logging in the mountain ash forests is required in order to preserve the mountain ash forest ecosystem and save the Leadbeater's possum?	DELWP acknowledges the role of timber harvesting in the loss of hollow-bearing trees. Harvesting, coupled with bushfires, has resulted in a younger, more uniform array of Mountain Ash forests in State forest than might have existed in the 19th century and prior to European settlement. DELWP does not agree that the Mountain Ash ecosystem is at risk due to timber harvesting. DELWP further believes that, while the loss of hollow-bearing trees clearly reduces the area of suitable habitat for Leadbeater's Possum, that areas of suitable habitat within national parks, special protection zones and other areas excluded from timber harvesting contribute significantly to reducing the extinction risk for Leadbeater's Possum. However, future bushfires could further diminish the value of habitat in areas excluded from timber harvesting.
4. The International Union for Conservation of Nature has listed the Mountain Ash forests as critical (citation included via weblink: https://iucnrle.org/static/media/uploads/assessments/24_burns_etal_2015_abstract_mountain_ashforest_central_highlands_victoria.pdf), do you agree, is the Mountain Ash Forest ecosystem Critical?	The analysis undertaken by these authors and published in the scientific journal Austral Ecology in 2015 is certainly thorough and well documented. Their analysis (and the conclusion that Mountain Ash Forest is critically endangered) is based on a) assumptions regarding future bushfire events and continuing timber harvesting and b) a definition of ecosystem collapse based on the density of hollow-bearing trees falling below 1 per hectare. While such a level would be a major issue for hollow-dependent species such as Leadbeater's Possum, it could be argued that the ecosystem has not collapsed irretrievably.

<p>5. On 11 July the review of the 200m exclusion zone around Leadbeater's colonies by the Arthur Rylah Institute was published. The review's recommendations include:</p> <p>a. Review how the Timber Harvesting Exclusion Zone is applied to reduce unnecessary indirect impacts on the timber industry while ensuring adequate protection for Leadbeater's Possum.</p> <p>b. Review Timber Harvesting Exclusion Zones and other existing Special Protection Zones in the Central Highlands to optimise for timber availability, protection for Leadbeater's Possum, threatened species and other forest values.</p> <p>6. Why has the review called for more reviews instead of making conservative recommendations such as keeping the THEZs and SPZs in place to protect endangered species?</p>	<p>The review report recommends continuation of the 200 metre Timber Harvesting Exclusion Zone (THEZ) prescription, which will ensure continued protection for verified Leadbeater's Possum colonies.</p> <p>The report also recommends a review of the THEZ approach to reduce some of the unintended, indirect impacts of these while retaining protections for the Leadbeater's Possum. The largest of these indirect impacts relate to the costs of road construction and loss of access to forest fragments. Further information is required from VicForests to understand the impact of each THEZ on these indirect costs. This information was not available at the time the review report was undertaken.</p> <p>The review report recommendations also recognise that in the longer term it is likely that we can provide greater benefit for the Leadbeater's Possum and greater certainty for industry by reviewing the reserve system (SPZ) at a landscape scale. Reconsidering the reserve system at a landscape scale can provide benefits by, for example, creating increasing connectivity between reserves, protecting of future habitat and addressing fire risks under climate change. Implementing the additional surveying work also recommended in the review, alongside information gained about location of Leadbeater's Possum colony locations through implementation of the THEZ, will enable this approach.</p>
<p>7. Given the increased evidence of threatened species being impacted by logging over the last 20 years, and necessary and increased demands for management of biological values, why are yet more biodiversity staff being let go, why are there fewer positions to reapply for, and why are the job descriptions lacking responsibilities for biodiversity conservation?</p>	<p>DELWP's proposed structure for the delivery of forest, fire and public land management programs and services includes more roles available than staff impacted by proposed changes.</p> <p>Twelve new positions have been created in regional Victoria under this new structure, to support the objectives of the Victorian Government's Biodiversity 2037 plan, with a further 31 jobs created to protect Victoria's forests and wildlife through improved compliance and enforcement.</p> <p>New position descriptions have been created to capture the range of responsibilities associated with natural environment management, including biodiversity conservation. These new position descriptions will enable departmental staff to adapt and respond to new and emerging biodiversity and natural environmental priorities.</p>
<p>8. DELWP currently 'accepts' forest back once it's been regenerated post logging, do you go onsite to check? And do you check every site?</p>	<p>Since 2003, DELWP has conducted independent audits to assess VicForests compliance with the Code of Practice for Timber Production 2014. The findings are used to improve operational practices. The 2016/17 audit includes assessment of regeneration practices. To check regeneration success, auditors will check VicForests stocking survey reports against requirements in the Code and then carry out field visits for a sample of sites. The</p>

	<p>department does not field check every coupe as this would not be an efficient use of resources.</p>
<p>9. Have you or the department calculated environmental losses as a consequence of poor compliance?</p>	<p>Victoria's State of the Forests report is issued every five years to provide information and monitor the broad environmental and social outcomes from forests across seven sustainable forest management criteria. This includes monitoring ecosystem health, forest type by growth stage (age), changes in water yield and the proportion of timber harvest area regenerated. The 2008 and 2013 reports are published on the department's website.</p> <p>Since 2003, DELWP has conducted independent audits to assess VicForests compliance with the Code of Practice for Timber Production 2014.</p> <p>Over the last three years, 88% of the non-compliance identified had either moderate or minor environmental impact. 12% of non-compliance identified had an actual or potential for a major environmental impact. The majority of these issues related to the design, construction and rehabilitation of waterway crossings and in-coupe roads. These issues impacted, or had the potential to impact, water quality and the movement of aquatic fauna.</p>
<p>10. How much did the Forest Industry taskforce cost taxpayers and what where those costs made up of?</p>	<p>Funding of \$1.00 million was provided in 2015/16 and \$0.75 million was provided in 2016/17 to establish and support a taskforce secretariat and provide for the administration / operation of the taskforce.</p> <p>We understand that there was a further allocation of \$750,000 provided out of DELWP funds to support the taskforce in 2016/17.</p>
<p>11. Can you provide the committee with information of the value of alternative markets as presented to the Forest Industry Taskforce?</p>	<p>The Victorian Government established the Forest Industry Taskforce to provide recommendations about the future of the timber industry. As the taskforce is an independent body which was supported by the Department of Premier and Cabinet, the DELWP is not privy to the specifics of the information provided to the taskforce.</p> <p>There are a range of estimates available about the values within our forests, from sources that include:</p> <ul style="list-style-type: none"> • Deloitte Access Economics 2015. 'Economic assessment of the native timber industry in the Central Highlands RFA. Report 1 – Economic and Financial Impact'. Report to VicForests. October 2015. • Keith, H., Vardon, M., Stein, M., Stein, J., and Lindenmayer D. 2016. 'Experimental Ecosystem Accounts for the Central Highlands of Victoria'. ANU Working Paper – Fenner School of Environment and Society. May 2016

	<ul style="list-style-type: none"> • Nous Group 2017. 'Great Forest National Park: Economic contribution of park establishment, park management, and visitor expenditure'. Report to the The Wilderness Society. Feb 2017. • RMCG 2014. 'Estimating the economic impact of hunting in Victoria in 2013'. Report to DEPI. March 2014. • Varcoe T., Betts O'Shea, H, Contreras, Z. 2014. 'Valuing Victoria's Parks'. Project report by DELWP and Parks Victoria. Available here: https://www.environment.vic.gov.au/accounting-for-the-environment • Dench McClean Carlson Corporate Advisory and k2Planning 2016. 'Impact of the Great Forest National Park to the Yarra Ranges Municipality'. Report to the Yarra Ranges Shire. March 2016.
<p>12. How much of the VicForests allocation of Ash forest was burnt in the 2003, 2007 and 2009 bushfires?</p>	<p>The total forest area that falls within the 2013 Allocation Order to VicForests (in State forest), burnt during recent bushfires in the Central Highlands is as follows:</p> <ul style="list-style-type: none"> • 2003 bushfire burnt 0 hectares • 2007 and 2006 bushfire burnt 9,823 hectares (1,858 ash and 7,965 mixed species forest) • 2009 bushfire burnt 67,562 hectares (26,322 ash and 41,240 mixed species forest).

Additional request for a publication	Reply
<p>Mr Craig Ondarchie, Member, Inquiry into VicForests Operations requested a copy of the Sustainability Charter (see page 3 of 9 August 2017 transcript):</p>	<p>Sustainability Charter for Victoria's State Forests is published online: https://www.forestsandreserves.vic.gov.au/forest-management/forest-sustainability</p>