

Supporting the Recovery of the Leadbeater's Possum

Progress Report October 2015



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MINISTERIAL FOREWORD

The Victorian Government has a proud history of protecting and enhancing the natural environment and is committed to supporting the recovery of our state's mammalian faunal emblem, the Leadbeater's Possum.

The habitat required by Leadbeater's Possum has been devastated by major fires on no fewer than three occasions in the past century – the 1939 Black Friday fires, the 1983 Ash Wednesday fires, and most recently, in the 2009 Black Saturday fires. About one third of the Central Highlands landscape that is potential habitat for the Leadbeater's Possum also provides significant resources for our state's native timber industry.

This history of intense bushfire and the co-habitation of industry and fauna, presents a unique and complex set of challenges, and we recognise that these challenges require current action and a commitment to develop long-term, pragmatic solutions.

As a Government, we have pledged our support for continued implementation of the Leadbeater's Possum Advisory Group (LPAG) recommendations, which are helping to provide security for Leadbeater's Possum colonies whilst also offering clarity and certainty for the native timber industry that operates within the Central Highlands.

It is pleasing to see the progress being made in implementing these recommendations though a collaborative effort across government and with the community. In particular, the identification and protection of 71 new Leadbeater's Possum colonies identified through targeted surveys and reports from a range of stakeholders including community members. Upon verification, colonies in State forest are protected from timber harvesting through a 200 metre radius (12.6 hectare) buffer.

This report provides a comprehensive update on progress over the past 12 months, not only of action taken in response to the LPAG recommendations, but also of the broader government effort to support recovery of the Leadbeater's Possum, including the small lowland population at Yellingbo.

Since the government was elected in December 2014, we have intensified efforts to identify and protect Leadbeater's Possum colonies and habitat in the Central Highlands, expanding upon the LPAG recommendations, including additional support for community to participate in this important task.

We have made good progress in phasing out stream-side cattle grazing licences in the proposed Yellingbo Conservation Area to improve habitat for Leadbeater's Possum and other threatened species, such as the Helmeted Honeyeater. We are also making arrangements to ensure that the community has a say in how this important habitat area is managed to enhance its environmental values.

In addition to the continued implementation of the LPAG recommendations, additional actions announced in April this year and the work in Yellingbo, we are establishing a Forest Industry Taskforce that will for the first time bring a consensus, best practice approach to address future issues facing the forestry industry. We look forward to resolving issues to support recovery of the Leadbeater's Possum and other threatened species through this process.

The

The Hon. Lisa Neville Minister for Environment, Climate Change and Water

The Hon. Jaala Pulford Minister for Agriculture and Minister for Regional Development

KEY ACHIEVEMENTS

| Finding and protecting Leadbeater's Possum colonies | • At 1 September 2015, 71 new Leadbeater's Possum colonies confirmed towards the target of identifying 200 new colonies in State forest in the Central Highlands with: |
|---|---|
| | fifty found through DELWP targeted surveys |
| | nine from reports from Project Possum |
| | nine from reports by community stakeholders (with a further four reports awaiting verification) |
| | three found through DELWP forest management activities |
| | • All newly identified colonies in State forest immediately protected through application of a 200 metre radius timber harvest exclusion zone |
| | An additional 45 new Leadbeater's Possum colonies found in national parks |
| | A revised survey standard for Leadbeater's Possum released in April 2015 that documents the process for new report submissions and verification of new records |
| | Survey equipment available for loan and training scheduled to support community involvement in surveys and submission of new colony reports |
| | Completion of two amendments of the Forest Management Zoning Scheme creating 200 metre Special Protection Zone (SPZ) buffers in State forest on 124 areas (protecting 283 existing colonies) and 64 areas for new colonies |
| Identifying, protecting and enhancing Leadbeater's Possum habitat | A further 66 nest boxes installed and 243 next box inspections completed, finding an occupancy rate of approximately 25 percent |
| | • A trial of the feasibility of mechanically creating tree hollows commenced, with 72 hollows created and signs of occupancy found in nine of these hollows (13 percent) four months after their creation |
| | Commencement of an Australian Research Council funded project to develop landscape management scenarios for future Leadbeater's Possum habitat |
| | Timber harvesting delayed in areas of greater than 65 percent probability of occupancy by the species resulting in 14,800 hectares being deferred from harvest for two years |
| | Modelled old growth ash forest within Leadbeater's Possum range buffered by 100 metres, resulting in 751 hectares of forest excluded and protected from timber harvesting |
| | Regrowth Retention Harvesting successfully completed on 23 coupes, resulting in the method being applied to approximately 42.5 percent of the total ash area harvested (that reached final harvest completion in 2014-15) within the range of the Leadbeater's Possum |
| | Modified burning applied to 16 Regrowth Retention coupes to support retention of key features and seedbed preparation |
| Managing the impacts of fire | New fire recovery protocols developed to guide decision making in the event of a fire within the range of the Leadbeater's Possum |
| | Identified Leadbeater's Possum colony data incorporated into bushfire management planning |
| Involving and informing the community | Release of the Leadbeater's Possum Interactive Map that provides access to the most up to date spatial information |
| | Three sets of survey equipment available for loan to the community to assist in the identification of new Leadbeater's Possum colonies |
| | Training available to support the application of the survey standard and use of the survey equipment |
| | Four community representatives to be included on the Yellingbo Conservation Area Coordinating Committee |
| | Over 200 hours of volunteer contribution to nest box installation and surveying through Project Possum |

INTRODUCTION

Ensuring the survival of the Leadbeater's Possum - Victoria's mammalian faunal emblem - is a major commitment of the Victorian Government. This report outlines the actions being undertaken by the Victorian Government to support the recovery of the Leadbeater's Possum.

Leadbeater's Possums are found in the Central Highlands to the northeast of Melbourne within State forest and national park. The native timber industry operates in approximately one third of the Leadbeater's Possum range in the Central Highlands State forests. There is also a small lowland population in the Yellingbo Nature Conservation Reserve to the east of Melbourne.

Central Highlands

Leadbeater's Possum Advisory Group recommendations and additional measures

The Andrews Government has confirmed support for continued implementation of the recommendations from the Leadbeater's Possum Advisory Group (LPAG) to help secure the long-term survival of Victoria's critically endangered Leadbeater's Possum in the Central Highlands. In April 2015 further measures were introduced including:

- fast-tracking targeted surveys to accelerate the identification of up to 200 new Leadbeater's Possum colonies, ensuring new colonies are identified and protected more quickly than originally planned
- VicForests commencing a program of remote camera surveys to look for Leadbeater's Possum colonies in selected areas planned for harvest that will complement existing measures such as the protection of habitat and retention harvesting in forest outside of the reserve system
- undertaking an infrared aerial survey to identify old trees and map habitat within the Leadbeater's Possum range, to capture new information that will lead to better forest management planning and regulation, and
- purchasing additional survey equipment for loan to further involve the community in the protection of Leadbeater's Possum colonies.

Delivery of the LPAG recommendations and additional actions is a collaborative effort, with coordination via a cross agency implementation committee comprising the Department of Environment, Land, Water and Planning (DELWP); VicForests; Parks Victoria; Zoos Victoria; the Department of Economic Development, Jobs, Transport and Resources; and Department of Treasury and Finance. Unless stated otherwise, the progress reported in this document relates to implementation of the LPAG recommendations. A report on the key achievements in the initial phase of implementing the LPAG recommendations *Supporting the recovery of the Leadbeater's Possum: Report on progress* was published in September 2014. A recap of the regulatory and planning measures reported on the initial phase is provided for context.

Forest Industry Taskforce

The Victorian Government is currently setting up a Forest Industry Taskforce to develop a consensus approach to the future of the forest industry. The role of the taskforce will be to provide leadership to reach common ground on the future issues facing the timber industry, job protection, economic activity, protection of our unique native flora and fauna and threatened species such as the Leadbeater's Possum.

Terms of reference are yet to be finalised, but taskforce members will include representatives from MyEnvironment, the Victorian National Parks Association, the Wilderness Society, the Construction, Forestry, Mining and Energy Union and the Victorian Association of Forest Industries.

Yellingbo

The Victorian Environmental Assessment Council's (VEAC) *Yellingbo Investigation Final Report July 2013* identified a number of threats to the natural values of public land in the Yellingbo area, east of Melbourne. This included threats to threatened species such as the Helmeted Honeyeater and Leadbeater's Possum. The report made a range of recommendations aimed at improving management arrangements including establishing a consolidated Yellingbo Conservation Area, appointing a coordinating committee to promote cooperation and coordination, and phasing out grazing from the area's stream frontages. DELWP and other lead agencies are now implementing the accepted recommendations set out within the formal Government Response and progress on relevant recommendations is noted in this report.

REGULATORY AND PLANNING MEASURES

A number of new regulatory and planning measures to protect Leadbeater's Possum colonies and habitat were introduced in October 2014 with the release of the Code of Practice for Timber Production 2014. Timber harvesting regulatory and planning changes included:

- establishment of Special Protection Zones (SPZs) in State forest of 200 metre radius centred on each verified Leadbeater's Possum colony found since 1998 excluding forest areas severely impacted by the 2009 wildfire
- exclusion of timber harvesting in State forest from within 100 metres of modelled old growth ash forest in the Leadbeater's Possum range
- amendment of the definition of Zone 1A habitat to more than 10 live mature or senescent hollow-bearing ash trees per three hectares in patches greater than three hectares. The revised definition reduces the requirement from 12 to 10 trees. In Zone 1A habitat, hollow-bearing trees are defined as live mature or senescent trees of Mountain Ash, Alpine Ash or Shining Gum
- protection of at least 30 percent of ash forest within each Leadbeater's Management Unit to allow these areas to mature into future old growth forest.

An update on the implementation of these regulatory requirements is provided in the following sections.



FINDING AND PROTECTING LEADBEATER'S POSSUMS

The effort to find and protect Leadbeater's Possum is shared between government, industry and the community.

As at 1 September 2015, 71 new colonies have been discovered in State forests since the baseline date of February 2014: 50 from DELWP's targeted surveys, nine from reports by Zoos Victoria and Parks Victoria found though Project Possum, nine from reports by community stakeholders (with a further four reports awaiting verification), and three found through DELWP forest management activities. Progress is well on the way to meeting the LPAG recommended target of identifying and protecting 200 new Leadbeater's Possum colonies in State forest within two years. An additional 45 new colonies have also been found in national park.

Targeted surveys

Targeted surveys are being undertaken by DELWP to assist in identifying and protecting 200 new Leadbeater's Possum colonies in State forest. In April 2015, the Victorian Government announced that the effort to identify and protect new possum colonies in State forest will be brought forward. Originally planned to be undertaken over a five year period from 2014-15 to 2018-19, the targeted surveys will now be completed by 2016-17 with the majority of survey undertaken in 2015-16. To date 50 new colonies have been identified from the targeted surveys at 113 carefully selected sites (44 percent detection rate).

Prior to commencing the targeted surveys, the effectiveness of various survey techniques was trialled. This found that a new technique using tree canopy specialists to install heat-andmotion sensing cameras opposite bait stations within the tree canopy or tall understorey was an effective alternative to using call playback recording and thermal cameras in dense forest. This technique is being applied in the targeted surveys. The height involved and the complexity of this technique means that it is only available to specialist survey teams.

Surveys were undertaken in State forest in General Management Zones (GMZ) or Special Management Zones (SMZ) in forest stands ranging in age from 15 to 76 years. This included recent timber harvesting regrowth, 1983 bushfire regrowth and 1939 bushfire regrowth. Cameras were positioned in well-connected vegetation 3 - 36 m above the ground along pathways where possums were more likely to be moving or foraging. Two cameras were set at each site and left in place for 21 days.

> Tree canopy specalist installing a heat-and-motion camera (on trunk at right) opposite a bait holder containing creamed honey on the adjoining branch. (Photo Lindy Lumsden, DELWP)

Sites were selected to target areas most likely to contain Leadbeater's Possum including:

- in areas where the modelled probability of occupancy was greater than 65 percent and adjacent lower probability areas
- near existing Leadbeater's Possum records both from the past 15 years and newly located colonies, to develop clusters of colonies for protection, and
- in known hot spot areas with high densities of records.

Leadbeater's Possum was recorded in all forest age classes sampled, with the highest detection rates in regrowth forest resulting from either the 1983 bushfires (at 27 percent of the cameras set) or regrowth from timber harvesting undertaken between 1978 and 2000 (38 percent of cameras), with 25 percent of cameras in 1939 regrowth recording the species.

Forty two sites were located in areas designated for harvest on the current Timber Release Plan, with Leadbeater's Possum recorded at 15 of these (36 percent). Sixty four sites were sampled in areas predicted to have greater than 65 percent probability of occupancy, with Leadbeater's Possum recorded at 49 percent of these sites.

Remote cameras detect animals where they are foraging or moving, in contrast to techniques such as stag watching that observe animals where they are nesting. Habitat assessments are therefore being undertaken by DELWP around each site to determine the presence of key habitat features, and further work is planned in conjunction with the Australian Government to learn more about how far from their nests the possums travel to forage.

A detailed report on the findings from the first year of targeted surveys is available on DELWP's Leadbeater's Possum web page at http://delwp.vic.gov.au/environment-and-wildlife/conserving-threatened-species-and-communities/ leadbeaters-possum.

The results from the targeted surveys have been incorporated into the Victorian Biodiversity Atlas that holds state-wide species location information. This data will also be used to:

- · improve existing habitat and distribution models
- improve future modelling capability
- identify further colonies for protection
- inform fire operations planning, and
- provide a greater understanding of where the species occurs throughout its range.

This knowledge will enable a more strategic approach to forest management to protect the Leadbeater's Possum.

Image of a Leadbeater's Possum taken by a heat-and-motion camera during the targeted surveys. (Photo DELWP)

New record submission and verification

A revised *Threatened Species Survey Standard: Leadbeater's Possum* was released in April 2015, replacing the 2013 *Survey Standards: Leadbeater's Possum Habitat Zones (Central Highlands Management Plan).* This revised standard (available on DELWP's Leadbeater's Possum web page) provides guidance on survey methods and the minimum level of evidence (e.g. photos or video footage) required for a submitted report to be established as a new colony record, and the survey effort required to determine if the species is not present. The standard covers methods for both species detection and habitat detection reports. This standard will be reviewed commencing in October 2015.

DELWP recognises the challenges involved in providing photographic or video evidence of the Leadbeater's Possum. In situations where plausible reports of Leadbeater's Possum are received with other supporting details, DELWP has committed to undertake follow up verification surveys (where resources permit) using specialised equipment to confirm the presence of the possum. The field verification process entails using multiple methods including: stag watching (monitoring all hollow-bearing trees at or near the reported site), call playback and thermal imaging cameras, and remote camera surveys until the presence or absence of Leadbeater's Possum is confirmed.

The revised standard was informed by the work undertaken to improve survey techniques and applied in the targeted surveys.



Applying the 200 metre radius Special Protection Zones

DELWP notifies VicForests as soon as new information on Leadbeater's Possum colonies is identified through targeted surveys and records provided by the community and other stakeholders. This means that timber harvesting is excluded in the 200 metre Special Protection Zone (SPZ) centred around a Leadbeater's Possum colony immediately by VicForests as an infield prescription. Following this, DELWP prepares a forest management zoning amendment to apply a 200 metre Special Protection Zone (SPZ) to each site. By 1 September 2015, DELWP had made two amendments zoning 200 metre SPZ areas for a total of 64 new colonies. This included colonies found through the initial stage of the targeted surveys and reports submitted by community and other stakeholders. Amendments to the forest management zoning scheme have also been made to rezone 124 aggregated areas encompassing 238 records of Leadbeater's Possum since 1998 to SPZ.

Amendments to the forest management zoning scheme are made on an ongoing basis and updated quarterly on the DELWP corporate spatial data library. The most recent update was in September 2015 and the next update is planned for December 2015.

Information on new and existing colonies and their protection buffers is available via the Leadbeater's Possum Interactive Map on DELWP's Leadbeater's Possum web page and from the DELWP spatial data library.

Yellingbo population monitoring

During May 2015, Zoos Victoria and Parks Victoria completed the annual population monitoring of the last surviving lowland Leadbeater's Possum population at Yellingbo Nature Conservation Reserve. This is the twentieth year of the monitoring program. Following a population decline of 60% over the past decades, numbers were stable over the last 12 months. The current population estimate is 48 individuals, made up of ten different family groups. Fifteen groups have been lost since 2003 due to decline in the condition of vegetation in the reserve.

VicForests surveys in selected areas planned for harvest

The additional measures to support the recovery of the Leadbeater's Possum announced by the Victorian Government in April 2015 include VicForests voluntarily undertaking a program of remote camera surveys to look for Leadbeater's Possum colonies in selected areas planned for harvest. This will complement current measures for protecting Leadbeater's Possum habitat such as the protection of high quality habitat and retention harvesting in forest outside of the reserve system.

The surveys will commence during 2015-16 and will be focussed on forest areas planned for harvest (coupes) that are most likely to provide habitat for Leadbeater's Possum, and based on criteria such as:

- proximity of known Leadbeater's Possum colonies to a planned coupe
- proximity of planned coupes to known hotspots of Leadbeater's Possum colonies, and
- presence of Zone 1A or Zone 1B Leadbeater's Possum habitat within or adjacent to the coupe.

Captive breeding

In 2012 a captive breeding program was established at Healesville Sanctuary to conserve the lowland Leadbeater's Possum. Currently 16 individuals are held as part of the breeding program. This includes the collection of six new individuals for captive breeding during May-June 2015. To minimise the impact on the wild population the collection of founders for the captive breeding has been restricted to three to six animals per year. The captive population aims to provide insurance against the extinction of the last lowland population and to provide a source of animals to re-populate restored habitat, facilitating expansion of the lowland populations at Yellingbo and beyond.

IDENTIFYING, PROTECTING AND ENHANCING HABITAT

Aerial survey to identify old trees and understorey habitat

One of the additional measures announced by the Victorian Government in April 2015 was to undertake an aerial survey of the Central Highlands to identify Zone 1A habitat, old trees and understorey density.

VicForests is required to protect and report the presence of Zone 1A habitat to DELWP. Information on the location of Zone 1A habitat is limited to that identified by VicForests through its field operations. Further information on the location and extent of Zone 1A habitat under the new definition as well as large old trees generally, is required to improve our understanding of where these key habitat features are and how to best manage them.

During 2014-15 VicForests explored methodologies to identify potential Zone 1A habitat at a landscape-level using existing information derived from aerial photography and remote sensing technology known as LiDAR, and to quantify the impact of changing definitions of Zone 1A on timber resource supply. Considerable progress has been made in collating a wide range of existing and new data and undertaking analysis to identify individual tree and habitat characteristics such as connectivity and numbers of potential habitat trees. A 400 hectare trial area of full waveform LiDAR and integrated colour imagery is being evaluated in order to inform future directions. The additional aerial survey will collect new data to establish a more comprehensive database that can then be used to identify and map large old trees to facilitate identification of Zone 1A habitat and to improve habitat models, and will build on the previous work undertaken by VicForests.

Harvesting delayed in areas of predicted high probability of occupancy

Following the previous Victorian Government's acceptance of the LPAG recommendations, VicForests took immediate action to exclude timber harvesting in areas where modelling undertaken by DELWP had identified a high probability (greater than 65 percent) of occupancy by Leadbeater's Possum. All planned harvesting was immediately delayed within 14,800 hectares across 63 coupes approved for harvesting in the Timber Release Plan.



Regrowth Retention Harvesting

VicForests has adopted a target for Regrowth Retention Harvesting (RRH) in at least 50 percent of the area of ash forest harvested in the Leadbeater's Possum range averaged over a three year period. RRH is a system developed by VicForests which aims to protect and enhance old-growth forest structures, maintain connectivity and support recolonisation of harvested areas overtime. RRH has progressed significantly since implementation commenced in July 2014, with this new harvesting approach now being incorporated into daily planning and operational activities. Since July 2014 twenty three coupes, approximately 42 percent of the total area of ash harvested within the range of the Leadbeater's Possum, have been completed under the RRH method. More areas are planned to be harvested under RRH for 2015-16 and 2016-17 in order to reach the 50 percent target.

The forests that VicForests operates in, and the RRH system that has been employed by VicForests are unique and therefore the success of this silvicultural system requires monitoring to ensure that desired outcomes are being met. It takes a significant period of time to plan, harvest, and regenerate a coupe and therefore monitoring of the

 Marking of large Mountain Grey Gum habitat tree for protection within a retention island (Photo Michael Ryan, VicForests) operational success and ecological outcomes of this change to harvesting practices will occur overtime. Preliminary monitoring will commence during 2015-16, with an aim to assess both the short-term operational outcomes and the longer-term ecological response to this change in harvesting. The overarching objective of this monitoring is to ensure an adaptive management approach to enable continual improvement in the capacity to retain and recruit forest structures that provide habitat for Leadbeater's Possum (and other biodiversity values) now, and into the future.

Retention island within a regrowth retention coupe. (Photo G Mitchell, VicForests)



Revised regeneration practices

After timber harvesting within ash forests, leaf and branch debris from the harvested trees remain on the harvested area. In order for regeneration to occur this material needs to be removed through either mechanical means, or through the more ecologically suitable technique termed 'regeneration burning' which creates a suitable seed bed for regeneration of the site. These burns, undertaken in autumn each year, are normally ignited using helicopter based ignition as the safest option for achieving seed bed objectives. In conventional coupes the larger size and more uniform shape makes this process relatively straightforward, however, with RRH sites there is a greater amount of retained forest in proximity to the area requiring regeneration burning.

VicForests has applied modified approaches for regeneration burns in 16 RRH coupes during 2014-15. Monitoring has commenced to assess how modifying regeneration burning practices can improve the survival of retained trees, protect other values and contribute to the ecological objectives of RRH.

VicForest's RRH aims to configure harvest operations to protect the highest quality habitat across the area available for harvesting. These habitat values and ecological assets

 Retained forest within the Regrowth Retention Harvested coupe called 'Aheek' in the Acheron Valley pre-burn 2014 (Photo Michael Ryan, VicForests) are identified prior to the burn, then mechanical removal of harvesting debris is undertaken to remove flammable debris from around retained features such as Leadbeater's Possum Zone 1A habitat.

Pre-burn removal of harvesting debris near important habitat gives the greatest flexibility to successfully achieve regeneration burns within a limited window of suitable autumn weather. Additional internal tracks also permit safer hand ignition by ground personnel where helicopter ignition is not feasible. Safety is a key requirement of any regeneration burning activity and therefore must be considered when designing a burning plan to prepare a site to achieve successful regeneration.

The next stage is to assess regeneration success on sites burnt under the varying regeneration burning techniques. This will occur over the next few years.

> Retained forest within the Regrowth Retention Harvested coupe called 'Aheek' post burn in 2015 with retained areas successfully protected in the regeneration burn (Photo Michael Ryan, VicForests)



Accelerating tree hollow development

A trial is underway to test the feasibility of using mechanical means to create nesting hollows.

Seventy two hollows have been mechanically created in areas where Leadbeater's Possum colonies are known to occur. Tree canopy specialists have developed a cavity installation technique to create holes that resemble the natural hollows preferred by Leadbeater's Possum for nesting, which have a small entrance and a large internal cavity.

Eighteen research sites have been established within existing 200 metre timber harvesting buffers, with four mechanically created hollows installed up to 16 metres above the ground at each site, a total of 72 hollows. Remote cameras have been installed opposite half of these new hollows to monitor whether Leadbeater's Possum will investigate or inhabit the hollows overtime. Initial inspections of the hollows four months after installation revealed that Leadbeater's Possums had built nests in nine of the 72 newly constructed hollows (13 percent).

This is a promising early sign of the potential effectiveness of this measure, which may assist in supplementing existing hollows as part of a broader management program. Further inspections will be undertaken over the next 12 months to monitor for additional uptake of the hollows and assess their longer term suitability as nesting and breeding sites.

Research has also commenced to investigate ways in which silvicultural activity can accelerate the development of tree hollows in younger trees over a longer timeframe. Funded by an Australian Research Council Linkage Grant, this three year project is a collaboration between the University of Melbourne, DELWP and VicForests. The outcome of this work will be the development of a landscape-scale management scenarios focused on increasing the availability of Leadbeater's Possum habitat.

 Mechanically created hollow installation , Noojee. (Photo Chela Powell, VicForests) A colony of Leadbeater's Possums using a newly constructed tree hollow, with one individual shown carrying strips of barks curled up in its tail, which is used for nest building (Photo DELWP/VicForests).



Installing nest boxes

The provision of long-lasting next boxes (constructed from recycled plastic) at strategic locations throughout the Leadbeater's Possum range is undertaken through Project Possum - a partnership between Parks Victoria, Zoos Victoria and the Friends of Leadbeater's Possum.

Project Possum activity spans sites across State forest and national parks in the Central Highlands. The project is currently focused on six new localities: Dowey Spur (in the Poweltown area), the Mt Baw Baw plateau, Mt Matlock, Snobs Creek, the Toorongo Plateau and the Thomson Valley.

A total of 66 new nest boxes have been installed at four localities through Project Possum. This includes 33 on the central Baw Baw plateau, 18 at Mount St Gwinear and 15 at Snobs Creek. This makes a total of 414 nest boxes installed through this program to date, 350 in national park and 64 in State forest.

Nest boxes installed through Project Possum are inspected periodically to confirm whether possums are still present at the site and camera trap surveys undertaken to determine the presence or absence of Leadbeater's Possum at established or proposed nest box sites. During 2014-15, 243 nest box inspections were completed, with nests found in 60 of the nest boxes, an occupancy level of approximately 25 percent. Surveys have also been conducted at 30 sites to inform the position of future nest box installations.

> The start of a Leadbeater's Possum nest in a nest box at Mt Ritchie in the O'Shannassay Catchment. The possums construct their nests from finely shredded tea tree or eucalypt bark that is woven into a large, tight ball. The members of a family group huddle within the centre of the nest, which provides important insulation and is one of the species' key methods for contending with cold temperatures that characterize the forests in which it is found. (Photo Dan Harley, Zoos Victoria)

Protecting future old growth forest

The planning standards under the *Code of Practice for Timber Production* introduced a target for protecting 30 percent of ash forest from timber harvesting operations within each Leadbeater's Possum Management Unit (LMU) to allow these areas to mature into future old growth forest.

DELWP and VicForests are working on a process to complete this action in the coming months.

Phasing out Yellingbo grazing licences

Parks Victoria is working with Melbourne Water and adjacent landowners to fence off stream frontages and phase out grazing within the proposed Yellingbo Conservation Area as recommended by the Victorian Environmental Assessment Council. This will improve the biodiversity values of the area's waterways through better water quality and increased protection of native vegetation. Improvements to the condition of these riparian strips supports habitat for both the Leadbeater's Possum as well as other species such as the Helmeted Honeyeater.



MANAGING THE IMPACTS OF FIRE

The East Central Bushfire Management Plan, released in October 2014, identified all known Leadbeater's Possum colonies, the location of high quality habitat and the location of timber assets for consideration in bushfire risk planning and risk reduction activities.

Following the release of this plan, work has commenced to implement and monitor fire management activities specific to the Leadbeater's Possum. This includes assessment of the risk from bushfire to Leadbeater's Possum colonies and identification of management strategies to mitigate these risks.

As new records become available via the targeted surveys and reports submitted by the community and other stakeholders are verified, this information feeds into fire strategic and operational planning. The results of the aerial survey to be undertaken in 2015-16 will also inform fire planning as it will provide valuable information on the location of old trees.

A draft protocol has been developed to guide decisions on measures to be undertaken to support recovery of the Leadbeater's Possum following fire. Key stakeholders have provided input to the development of the protocol via a series of workshops.

Photo: Dan Harley, Zoos Victoria



INVOLVING AND INFORMING THE COMMUNITY

Support for community to submit new colony records

The Victorian Government is keen to involve the community in the important task of identifying and protecting Leadbeater's Possum colonies. To support this effort, the government purchased and assembled three survey equipment kits for loan to community groups, researchers and other stakeholders. This equipment will assist in the task of collecting evidence to support the submission of records (as outlined in the Leadbeater's Possum survey standard). The kits include audio equipment to attract possums using the call playback technique, thermal cameras to assist in locating possums, spotlights to assist in identification, other cameras to capture video images at night and global positioning systems (GPS) to record accurate location details.

A training session is planned for late October/early November 2015 to provide guidance in the use of the equipment and the application of the survey standard, to support the community in collecting evidence of the presence of Leadbeater's Possums that can then be more quickly verified.

Applications for the loan of the survey equipment and registration for the training can be made via the DELWP Leadbeater's Possum web page.

Community participation in Project Possum

Two community involvement weekends were held in 2014-15 involving dedicated volunteers from Friends of Leadbeater's Possum and Zoos Victoria.

Volunteers donated their time inspecting previously installed nest boxes for occupancy and carrying recycled plastic nest boxes to new designated sites in remote areas of the Baw Baw plateau. These volunteers contributed 204 hours in labour and enthusiasm and made an important and valued contribution to the success of this year's program.

Access to Leadbeater's Possum information

A range of Leadbeater's Possum spatial information for the Central Highlands is now available via the Leadbeater's Possum Interactive Map at the DELWP Leadbeater's Possum web page. This user friendly interactive mapping tool provides public access to the most up to date Leadbeater's Possum spatial information including the location of:

- Leadbeater's Possum colonies in State forest and national parks including pre-existing colony records (since 1998), new colonies identified through targeted surveys and colonies verified from community reports
- the 200 metre radius SPZ applied to pre-existing colony records and new records in State forest
- areas where there is a modelled probability of occupancy by Leadbeater's Possums
- areas where DELWP has undertaken targeted surveys to identify new colonies.

This information can be viewed for each of the 21 Leadbeater's Possum Management Units within the Central Highlands or at a more localised level on maps that also provide contextual information such as roads and streams. The mapping tool will be updated regularly as new data is incorporated into DELWP data bases. It will also continue to be updated to provide additional functionality and easy access to additional spatial information.

Yellingbo Conservation Area Coordinating Committee

The Victorian Government Response to the Victorian Environmental Assessment Council's Yellingbo Investigation Final Report supported the establishment of a Yellingbo Conservation Area Coordinating Committee to improve coordination and cooperation between land managers and other agencies involved in the Yellingbo area.

The committee is currently being established and will include agency representatives from Parks Victoria (who will provide secretariat support), Melbourne Water, Yarra Ranges and Cardinia Shire Councils, Zoos Victoria, Trust for Nature, Port Phillip and Westernport Catchment Management Authority and the Department of Environment, Land, Water and Planning. Three community representatives nominated by Yarra Ranges Shire Council will also be included as well as a community representative from Cardinia Shire Council. The committee will be overseen by an independent chair and is expected to be operation in the coming months.



Screen shot from the Leadbeater's Possum Interactive Map shows 200 metre buffers around Leadbeater's Possum colonies. Additional records within an existing 200 metre radius Special Protection Zone are considered duplicate records and not recorded as a new colony

