INQUIRY INTO KOALA POPULATIONS AND HABITAT IN NEW SOUTH WALES

Organisation: South East Timber Association Inc
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Inquiry into Koala Populations and Habitat in NSW

The South East Timber Association (SETA) is based in south east NSW and members are strongly committed to ensuring public forests are available for a wide range of environmental, recreational and commercial activities. SETA expect land management agencies will use active and adaptive management practices to maintain environmental values in the long term.

SETA expects the government to commit to ensuring forest and related policies strike an appropriate balance between social, environmental and economic outcomes, while minimising adverse impacts of policy changes on regional communities.

Koalas – a Brief Historic Perspective
The first live koala was not recorded by Europeans until 1803, 15 years after their arrival. Koalas were not commonly sighted in NSW, until the late 1830's. Koalas became noticeable along the edge of the Blue Mountains as dense stands of eucalypts, such as stringybarks provided a leafy food source for the initially low-density koala population.

The "new" koala food resource grew, as seedlings from relatively wide spaced mature eucalypts, were no longer controlled by Aboriginal fire management and turned the open forests, with grassy understorey into the dense forests, with an understorey dominated by young eucalypts and shrubs, typical of the stand structure found in much of the public native forest estate today.

Koala populations have ebbed and flowed, as regrowth and mature eucalypts, with epicormic crowns have provided relatively young and nutritious leaves, to allow high density koala populations to develop in different areas at different times. In turn, large scale wildfires, habitat loss, predators, disease and drought have, at times, decimated high density populations. These impacts then reduce koala populations to lower and potentially, more sustainable levels. In some cases, population density may be reduced to a level where any remaining animals are not detected by survey methods or become locally extinct.

It is likely that the true extent of koalas in NSW is not yet documented, as there has been no consistent, efficient, bardscale survey of potential koala habitat undertaken across all potential habitat.

Late 20th Century Conservation Measures
As part of broader "conservation" campaigns, a view has formed, that to secure the survival of koalas in NSW, it will be necessary to put all the remaining state forest into conservation reserves. Currently, over 79 percent of the available public land in NSW is in the reserve system. The NSW area of reserves of 7,152,822 hectares (February 2019) does not include the most recent commitments to new "koala" reserves through the "protection" of additional areas of state forests by transfer to the reserve system. Survey data gathered in recent years suggests this simplistic conservation approach is not working and more needs to be done to ensure koalas remain part of the NSW biodiversity.
How are Current Koala Protection Measures Working?

In 1992, areas of Tantawangalo State Forest were transferred to the Tantawangalo Koala Nature Reserve. It was stated that "there was an estimated population of 40 to 45 mature adult koalas in the catchment, which was the most significant colony in south-eastern NSW.

Under the "Forestry Revocation and National Park Reservation Act 1996 No 131" over 20,000 hectares of Tantawangalo and Glenbog State Forests, including what was considered to be the prime koala habitat was transferred to the South East Forest National Park.

Nineteen years after the core Tantawangalo koala population was "protected," the 2011 koala Listing Advice to the Federal Environment Minister stated on page 26: "Recent intensive surveys show that a population at Tantawangalo/Yurammie is now very low and possibly extinct."


Unfortunately, the Tantawangalo reservation is not the only example of koala populations declining following the "permanent protection" of koalas in the reserve system.

The Pilliga forests in the central north west of NSW cover 535,000 ha. The Pilliga Forests comprise the single largest remaining tract of native forest and woodland in NSW, west of the Great Dividing Range.

Surveys of the Pilliga forests in the 1990s suggested that the forests were carrying the largest population of koalas west of the Great Dividing Range in NSW, with the numbers estimated at approximately 15,000 (Kavanagh and Barrott, 2001). On 4 May 2005, the then Premier, Bob Carr announced that 348,000 hectares of icon forests will be permanently protected in a new Community Conservation Area. “This is a win for conservation and for
jobs,” Mr Carr said. These reserves transferred the managed state forests, containing the prime Pilliga koala habitat.

The NSW koala population case studies report by Martin Predavec dated July 2016 states: Recent studies within the broad area have suggested a dramatic decline in koala populations. A combined series of repeat surveys for koalas within the Pilliga forests showed a decline of over 80% in both the distribution and activity of koalas within the forests (Lunney, Predavec, Miller, Kavanagh, et al., 2016).

These and other examples would suggest that long-term koala conservation takes more than activist lead campaigns, arbitrary political announcements, moral responsibility and a change of land tenure.

**NSW South Coast Koala Flora Reserve**

RFA negotiations in southeast NSW in the late 1990s resulted in, what was thought at the time, to be the best koala habitat in state forests between Bega and Bermagui being transferred into the Biamanga National Park. If harvesting of native forests is the big threat to koala conservation, as alleged by many activist charities, koala numbers in the expanded National Park would then increase and numbers in logged State Forest would decline.

In March 2016 over 11,000 hectares of the Tanja, Murrah, Mumbulla and Bermagui State Forests were transferred into a new Koala Flora Reserve to protect what was said to be the last koala population on the far south coast of NSW.

The following survey results for koala faecal pellets (KFPs) shows a different outcome.

**Table 1. Number of sites assessed, active sites, occupancy rates by land tenure (2012–14 results in black text; 2007–09 results in blue text).**

<table>
<thead>
<tr>
<th>Tenure</th>
<th>No. sites assessed</th>
<th>No. trees searched</th>
<th>No. sites with Koala faecal pellets</th>
<th>% of sites occupied</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biamanga NP</td>
<td>233</td>
<td>5990</td>
<td>384</td>
<td>6.01</td>
</tr>
<tr>
<td>Gulaga NP</td>
<td>1</td>
<td>8</td>
<td>14</td>
<td>0.00</td>
</tr>
<tr>
<td>Bermagui NR</td>
<td>30</td>
<td>38</td>
<td>0</td>
<td>0.00</td>
</tr>
<tr>
<td>Mimosa Rocks NP</td>
<td>120</td>
<td>9</td>
<td>3600</td>
<td>10.83</td>
</tr>
<tr>
<td>Mumbulla SF</td>
<td>229</td>
<td>176</td>
<td>5890</td>
<td>23.56</td>
</tr>
<tr>
<td>Murrah SF</td>
<td>170</td>
<td>65</td>
<td>5100</td>
<td>7.08</td>
</tr>
<tr>
<td>Bermagui SF</td>
<td>23</td>
<td>80</td>
<td>890</td>
<td>4.34</td>
</tr>
<tr>
<td>Tanja SF</td>
<td>28</td>
<td>84</td>
<td>940</td>
<td>7.14</td>
</tr>
<tr>
<td>Private Land</td>
<td>78</td>
<td>72</td>
<td>2340</td>
<td>8.97</td>
</tr>
<tr>
<td>Other Aboriginal Land</td>
<td>6</td>
<td>14</td>
<td>180</td>
<td>16.67</td>
</tr>
<tr>
<td>All National Parks and Nature Reserves</td>
<td>384</td>
<td>183</td>
<td>11520</td>
<td>7.29</td>
</tr>
<tr>
<td>All State Forest</td>
<td>450</td>
<td>320</td>
<td>13500</td>
<td>15.33</td>
</tr>
<tr>
<td>Total All Sites</td>
<td>918</td>
<td>588</td>
<td>27540</td>
<td>11.44</td>
</tr>
</tbody>
</table>

The latest survey showed the level of koala activity in the Mumbulla State Forest was almost four times higher than that found in the adjoining Biamanga National Park. An overlay of disturbance history shows that the highest level of koala activity is associated with regrowth from integrated harvesting and a 1980 bushfire.
The table and the map confirm that, with the proper management controls, koalas can coexist with timber production as harvesting regrowth provides a food resource that sustains higher koala populations than passively managed forests.

If the government wants to maintain or even increase koala populations, it needs to accept that higher density koala populations are associated with suitable browse conditions. In the Murrah Flora reserves and elsewhere, these conditions are associated with areas of regrowth and also areas of mature trees that have been subject to significant stress in previous years and have epicormic crowns, with relatively nutritious foliage.

![Mature Eucalypts with Epicormic Foliage](image1.jpg)

Mature trees with epicormic foliage and high koala density are not sustainable in the medium term, as the trees are likely to succumb to the browsing pressure.

![Eucalypts Killed by Koala Browsing](image2.jpg)

Eucalypts killed by koala browsing (Photo MojoNews.com.au)
**NSW Conservation Management is Shackled by a Terra Nullius View of the Evolution of the Australian Biota**

If koalas and many other species are to survive in the long term, there must be a total rethink of the NSW conservation framework. NSW reserve management, with minor exceptions, is rooted in a terra nullius view of the evolution of the Australian biota. The terra nullius view is a 20th century construct that denies the existence of Aboriginal land management, particularly in relation to fire. Consequently, 50,000 years, of disturbance adapted biodiversity is subjected to the wilderness myth (no human management). This myth underpins the management of most parks and reserves in NSW and is often erroneously referred to as "permanent protection."

The Terms of Reference for this inquiry are almost entirely focussed on the 10 percent of public land currently available for timber harvesting. Ironically, the cyclic harvesting and regeneration has consistently created a food resource that results in higher density koala populations than those occurring in the broader unmanaged forest landscape. The bureaucratic and activist reaction to this outcome, is to "permanently protect" the koalas by changing land tenure and management, with the perverse outcomes noted above.

**Koala Protection on Private Property**

A 2011 ‘Science Alert” article reporting on koalas in the Gunnedah region stated:

"University of Sydney researchers have gained a rare insight into the habits of koalas, discovering simple tree planting may be the solution to expanding their habitat and allowing their populations to grow."


Farm forestry plantings on private property, had inadvertently created a food resource for the low-density koala population that was surviving in remnant patches of native vegetation. Consequently, koala numbers increased, as young koalas could disperse into territories, with adequate food resources. These koalas had and continued to coexist with the existing agricultural pursuits.

Over the past 20 years, blue gum plantations have been established in western Victoria. Remnant populations of koalas have exploded, as they take advantage of this large-scale revegetation project, much to the surprise of the experts who thought koalas would not eat blue gums.

These examples show that revegetation projects throughout current and former koala habitat can lead to long-term population growth and survival of koalas. The creation of more national parks to “protect” existing populations may not be as effective.

**HOWEVER, what farmer would want to participate in any revegetation program when the terms of reference for this enquiry make it clear that any private property with existing koala populations are targeted for "protection?" The bureaucratic solipsism, that is incapable of understanding koalas can live harmoniously with farming operations, including native forest harvesting, is the biggest obstacle to the survival of existing koala populations on private property and the biggest obstacle to expanding the footprint of koalas.
Koalas and Wildfires

Despite the 2018-19 fire season being fresh in most land managers minds and drought still affecting 99 percent of NSW, the author(s) of the inquiry TOR are so focused on using koalas as a tool to stop native forest harvesting on state forest and private property, the biggest threat to most koala populations has been ignored.

In January 2013, a number or SETA members spent 3 weeks, assisting in the control and mop-up of a bushfire in the Kybeyan area. Despite the efforts of all the fire fighters, the initial run of the fire impacted the largest known koala population in southeast NSW, which had an estimated population of 300 animals. It was estimated that about 50 percent of the population was killed by the fire.

Koalas do not Survive Fires Like This!

After the fire, one SETA member commented "It was no surprise to me or other SETA members who helped fight the fire and minimise the impact on the koalas, that not one of the “conservationists” who have campaigned and protested against our industry, put one minute into fighting the fire to protect the koalas."

Conclusion

In the view of SETA members, this inquiry has been established to continue to find ways to restrict the harvesting of native forests on both public and private land, under the guise of koala protection.

The terms of reference ignore the fact that koalas respond to harvesting by increasing in numbers, as the regeneration provides a higher level of food resources than "permanently protected" reserves.
The inquiry TOR fail to address the impact that more frequent and intense wildfires will have on koalas and all other biodiversity in future, as land managers fail to manage the build-up of forest fuels.

Recommendation 1: It is recommended that the Terms of Reference for the inquiry be amended to examine how active and adaptive management of koala habitat can be used to increase the koala populations on all land tenures, without destroying the social and economic benefits communities derive from multiple values provided by native forests.

Recommendation 2: It is recommended that state wide surveys using new technology are undertaken across all areas of potential koala habitat, so the actual footprint, including low density populations, is known.

Recommendations 3: It is recommended that the revised TOR include consideration of management of wildfire risk and document the potential impacts on koalas if the incidence and severity of wildfires is not reduced.

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