

Australian Network of Environmental Defender's Offices



Australian Network of Environmental
Defender's Offices Inc

Submission responding to Draft EPBC Act referral guidelines for the vulnerable koala (*Phascolarctos cinereus*) in Queensland, New South Wales and the Australian Capital Territory

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The Australian Network of Environmental Defender's Offices (ANEDO) consists of nine independently constituted and managed community environmental law centres located in each State and Territory of Australia.

Each EDO is dedicated to protecting the environment in the public interest. EDOs provide legal representation and advice, take an active role in environmental law reform and policy formulation, and offer a significant education program designed to facilitate public participation in environmental decision making.

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Introduction

ANEDO welcomes the opportunity to comment on the Draft EPBC Act referral guidelines for the vulnerable koala (*Phascolarctos cinereus*) in Queensland, New South Wales and the Australian Capital Territory (**Draft Koala Guidelines or Guidelines**). Our submission has been prepared with the assistance of the EDO NSW science team, and ecologists with expertise in koalas.

ANEDO has extensive experience working with the EPBC Act. This experience includes advising clients, managing cases, writing submissions and briefing papers, and producing educational resources for the broader community.

We are therefore aware that the Draft Koala Guidelines, like the Significant Impact Guidelines, do not form part of the assessment and approval process under the EPBC Act. Notwithstanding this distinction, it is important to note that the Draft Koala Guidelines highlight one of the key deficiencies of the EPBC Act, namely its failure to properly address cumulative impacts. Specifically, the Act does not include a mechanism to manage the many actions (such as private native forestry projects in NSW) which may individually fail to meet the 'significant impact' test, but in combination are likely to significantly increase koala mortality and injury through habitat loss (including loss of climate refugia), disease, traffic accidents and predation by feral animals.

It is beyond the purview of this submission to discuss cumulative impacts on the vulnerable koala in detail. However, we would like to note the importance of addressing this issue through appropriate amendments to both the EPBC Act and State and Territory legislation, as well as proper implementation of the National Koala Conservation and Management Strategy 2009-2014.

Our submission focusses on the following areas:

- Glossary;
- Surveying;
- Concept of 'significant impact';
- Koala context attributes; and
- Climate change.

Glossary

ANEDO recommends the following amendments to the Glossary.

a) ***Koala habitat***

We recommend inserting the following definition of 'koala habitat' contained in Section 5 into the Glossary:

For the purposes of these guidelines, koala habitat is defined as any forest or woodland containing species that are known koala food trees or shrubland with emergent food trees. This can include remnant and non-remnant vegetation in natural, agricultural and urban environments. Koala habitat is defined based on the plant community present and the vegetation structure; the koala does not necessarily have to be present.

b) ***Shelter tree***

We recommend removing the reference to 'hot or inclement weather' as shelter trees are not only used in extreme conditions, but for the routine regulation of moisture and heat balance.

Recommendation

- The definitions of koala habitat and shelter tree should be amended as per our recommendations in (a) and (b), above.

Surveying

ANEDO is broadly supportive of the surveying methodology outlined in Section 6 of the Draft Koala Guidelines. Specifically, we support the use of desktop studies that draw on existing records, as well as landscape scale vegetation identification using local or State government mapping. Where knowledge gaps exist, on-ground koala surveys are required to verify koala habitat use, habitat quality and habit size.

More generally, we are mindful that desktop studies and landscape scale vegetation identification do not exist for many regions within the modelled distribution area, and that knowledge gaps hinder proper management of the species. By way of evidence, the Approved Conservation Advice for the *Phascolarctos cinereus* prepared under s. 266B of the EPBC Act and dated 30 April 2012 (**Approved Conservation Advice**) notes that:¹

While there has been substantial investment into research on koalas, the lack of coordination and prioritisation at all levels has left significant gaps in our

¹ Approved Conservation Advice for *Phascolarctos cinereus* (combined populations of Queensland, New South Wales and the Australian Capital Territory (koala Northern Designatable Unit), approved by the Minister on 30 April 2012, p. 2.

knowledge of the species, and hence in the capacity to manage it more effectively.

The Approved Conservation Advice outlines key research priorities. These include (but are not limited to):

- Develop landscape-scale population models, to provide a framework for the assessment of relative threat risk and management intervention cost-effectiveness;
- Identify and delineate key populations;
- Determine the ability of inland koala populations to persist after, and recover from, drought, and evaluate the likely influence of climate change on these processes.

ANEDO is aware that actioning these research priorities is not directly connected to the Draft Koala Guidelines. However, implementing these priorities is necessary if data gaps are to be filled and management of the vulnerable koala population optimised. Failure to do so may inhibit proponents' ability to access accurate information about koala populations and their habitat, thereby undermining the referral process.

While on-ground research may be undertaken where desktop information is unavailable, our experience indicates that communities tend to perceive consultant ecologists employed by proponents as potentially biased. Indeed, community perception is corroborated by research demonstrating the existence of 'funding bias.'² Accordingly, independently collected and collated data is vital.

Recommendation

- Research priorities concerning knowledge gaps must be filled in order to ensure that sufficient data exists for proponents to make an informed decision regarding referral.

Concept of 'significant impact'

Section 7 of the Draft Koala Guidelines, 'Could your action have an impact on habitat critical to the survival of the koala?' notes that

*These guidelines encourage the assessment of significant impacts on the koala **primarily** through the assessment of habitat critical to the survival of the koala and actions that interfere substantially with the recovery of the koala. (Our emphasis)*

ANEDO submits that this interpretation of 'significant impact' is problematic for two key reasons.

² See for example Krinsky, Sheldon, *Combatting the Funding Effect in Science: What's Beyond Transparency?*, *Stanford Law and Policy Review*, 21:1, pp. 107-9.

First, 'habitat critical to the survival of the species' constitutes an inappropriately high threshold insofar as it does not reflect the definition of 'significant impact' contained in the Significant Impact Guidelines (which is based on the definition developed by the courts).³ Specifically, the Significant Impact Guidelines state that '[a] 'significant impact' is an impact which is important, notable or of consequence, having regard to its context or intensity'.⁴

ANEDO submits that the legal definition of 'significant impact' contemplates impacts other than those that may affect the survival of the species. For example, habitat fragmentation may undermine the size and resilience of a population without definitively affecting its long-term survival.

Accordingly, this overly restrictive interpretation should form part of a more inclusive list of key threats likely to have a significant impact on the vulnerable koala. Key threats should be based on the list of actions that could 'substantially interfere with the survival of the koala' contained in Section 9 (see comments below), with the addition of 'habitat loss and fragmentation' (which is the main threat to the vulnerable koala)⁵ and 'loss or fragmentation of refugia'.⁶⁷

Recommendations

- 'Habitat critical to the survival of the species' should be removed as the primary means of determining whether an action is likely to have a significant impact. Rather, it should be added to the list of key threatening processes listed in Section 9.
- The list of key threatening processes in Section 9 should be amended to include 'habitat loss and fragmentation' (which is the main threat to the vulnerable koala) and 'loss or fragmentation of refugia'.

Koala context attributes (Table 1)

Potential habitat (inland)

The first 'suitable habitat' is limited to 'riparian woodlands and forests (where koala food trees have reliable access to soil moisture)'. ANEDO submits that this is too restrictive as trees in non-riparian areas may have access to aquifers which provide adequate moisture in dry times. Furthermore, research conducted by the NSW Office of

³ *Booth v Bosworth [2001] FCA 1453*.

⁴ Australian Government, *Significant Impact Guidelines 1.1*, p. 2.

⁵ We do note that 'habitat loss' is referenced as the primary adverse effect on habitat critical to the survival of the species.'

⁶ While 'loss and fragmentation of refugia' may be considered a subset of 'habitat loss or fragmentation', we consider it useful to acknowledge that loss of refugia (including climate refugia) has a particular impact on the long-term survival of the vulnerable koala. A separate category of threat is therefore warranted.

⁷ Research indicates that genetic diversity can build diversity in vulnerable species, thereby improving their capacity to adapt to climate change. Koala populations are marked by a low level of genetic variation, thereby rendering them particularly vulnerable to extreme weather conditions. See International Union for the Conservation of Nature, *IUCN Red List: Koalas and Climate Change – Hungry for CO2 cuts*, 2009, p. 4.

Environment and Heritage indicates that much of the habitat sustaining the north-east Monaro koala population is rangelands, which is typified by less than 800 mm of average annual rainfall. Data suggests that some upper and mid-slope areas are used more frequently by koalas than riparian zones, even during dry periods.⁸

Potential habitat (coastal)

It is arguable that the cleared areas between 'isolated food and/or shelter trees on farm lands and in suburban streetscapes and parks' also constitute habitat insofar as koalas must traverse these areas in order to reach the isolated trees.

Other

Please see our recommendations, below, regarding 'primary threats' (inland and coastal) and 'interim recovery objectives' (inland and coastal).

Recommendations

- Under 'inland habitat', we recommend deleting 'riparian' from 'riparian woodlands and forests (where koalas have reliable access to soil moisture)'.
- Under 'coastal habitat', we recommend adding 'cleared areas between isolated food/and or shelter trees on farm lands and suburban streetscapes and parks'.
- Under 'primary threats – inland' we recommend adding 'vehicle strikes'.
- Under 'primary threats – coastal', add 'fire'.
- Under 'interim recovery objectives' for both inland and coastal regions, add 'mitigate or avoid vehicle strikes.'

Climate change

Lunney and Hutchings have described the koala as 'highly sensitive to climate change'.⁹ However, the Draft Koala Guidelines do not properly contemplate the relationship between global warming and significant impacts on this species. This is particularly problematic as individual actions may result in loss or fragmentation of climate refugia, or reduce resilience, thereby undermining the vulnerable koala's capacity to adapt to more extreme climatic conditions. For example, actions that introduce or spread disease¹⁰ or reduce genetic diversity¹¹ are known to decrease resilience in koala populations.

⁸ Data is as yet unpublished. We would recommend contacting Chris Allen (Koala Recovery Coordinator for South East NSW) at the Office of Environment and Heritage for further details.

⁹ Lunney, Daniel and Hutchings, Pat, *Wildlife and Climate Change : Towards robust conservation strategies for Australian fauna*, Royal Zoological Society of New South Wales, Mosman, 2012, p. 2.

¹⁰ Ibid, pp. 150-159.

¹¹ See for example Frankham, Richard, *Genetics and Conservation Biology*, C. R. Biologies 326 (2003) S22–S29, p. S25.

Recommendation

- Sections 7, 8 and 9 of the Draft Koala Guidelines should be amended to include more specific commentary regarding the impacts of climate change on the vulnerable koala, as well as examples of actions which may reduce the species' capacity to adapt to a changing climate.