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Senate Environment and Communications Reference Committee
PO Box 6100 Parliament House
Canberra ACT 2600

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To whom it may concern,

Humane Society International (HSI) welcomes the opportunity to provide a submission on the Senate inquiry into the status, health and sustainability of Australia's koala population, and does so on behalf of our 40,000 Australian members. As Senator Bob Brown has stated, despite the koala's iconic status, relatively little is known about threats to the species, and it is hoped that this inquiry will not only assist in the establishment of more accurate population estimates and potential impacts of the species, but also enable better management of koala populations across the country through a more consistent, unified and strategic approach. HSI is hopeful that the inquiry will give momentum towards listing the koala as a threatened species under the Commonwealth *Environment Protection and Biodiverstiy Conservation Act 1999* (EPBC Act) and subsequently establish better protections for vital remnant koala habitat. Coincidentally, HSI joined the Australian Koala Foundation (AKF) in making the very first nomination for the koala to be listed under the EPBC Act predecessor, the *Endangered Species Protection Act 1992*, in 1995.

<u>The listing of the koala under the EPBC Act</u>
HSI is of the belief that the listing of *Phascolarctos cinereus* as a threatened species under the EPBC Act is an essential, and singlehandedly most important step in ensuring the species' long term survival, as such a listing would instigate the most effective tools available for the koala's national conservation. Current management tools are State run and lack the consistency of a national approach, backed by national legislation, which would effectively protect a broad range of koala populations from common and increasingly prevalent threats. Listing the koala as threatened and thus making it a Matter of National Environmental Significance will trigger a national management approach under the Act and allow a more precautionary approach to threatened and potentially threatened populations across Australia.

It is important that the management of koalas populations in Australia is undertaken with a national perspective that takes into account the species conservation status throughout its range, with the overall goal of management at all scales being to maintain and improve the species' national conservation status. As the koala's distribution extends across multiple States, national protection afforded under the EPBC Act is the species' best chance for long term recovery and survival, and would provide nationwide consistency in areas not currently under State protection. Bolstered national protection in areas already protected under State environmental law would be an extremely positive step, as being listed under both State and Commonwealth legislation further safeguards the effectiveness of both listings.

In June last year HSI commended the Threatened Species Scientific Committee's (TSSC) nomination to list the koala under the EPBC Act and submitted comments in support of a vulnerable listing against criterion 1 – that the koala has undergone, is suspected to have undergone or is likely to undergo in the immediate future a very severe or substantial reduction in

numbers. Data presented in the nomination to support this criterion included study results which show, using bioclimatic modeling, that the koala's range may contract by 20-30% by 2030, which is presented as evidence to show both predicted future changes in extent of occurrence and size[1].

An important advantage of a vulnerable listing under the EPBC Act is that it would safeguard populations from increasing threats by triggering intervention from the Federal Environment Minister in the approval of actions that significantly impact on the species. Such a trigger is vital for the national conservation of koala's habitat and population. Another good example of provisions available for species listed as vulnerable but not conservation dependent from which the koala would greatly benefit is section 207A of the EPBC Act, in which it is stated that:

...the Minister may list habitat identified by the Minister in accordance with the regulations as being critical to the survival of a listed threatened species…[12]

With development pressures a leading threat to the loss of vital koala habitats, there is the potential to identify and protect critical habitat through the EPBC Act, thus protecting specific koala populations across their entire distribution[1].

Although evidence shows that a decline in the overall Australian koala population is not as significant as decline in specific local populations, there are a considerable number of local populations which would benefit from national protection.

Interaction of State and Federal laws and regulations

In Queensland, the koala is listed as 'vulnerable' in the Southeast Queensland Bioregion under the Queensland *Nature Conservation Act 1992*. This listing was in response to significant threatening processes impacting on koala populations in Southeast Queensland and a perceived decline in the Southeast Queensland koala population[7]. According to the AKF, the decline of koala habitat in the rest of Queensland is of major concern due to clearing and deterioration of poplar box woodlands. Furthermore, the protection of koalas within the "Koala Coast" has done little to prevent threats, such as developments, from reducing koala abundance by 51% in just three years[8]. Specifically, two populations – Mulgalands in the Southwest and the Koala Coast and Pine Rivers in the Southeast of the State – have experienced more than a 50% decline in their populations.

In NSW, the species is listed as 'vulnerable to extinction' under the NSW *Threatened Species Conservation Act 1995* (TSC Act), and has two specific populations listed as 'endangered'. The NSW *TSC Act* protection and SEPP 44 policy (Koala Habitat Protection) have not protected the koala effectively and populations remain in decline. In reiterating findings from the 2008 New South Wales Recovery Plan for the koala,

…detailed local studies which have examined population dynamics in relation to existing threats, such as land clearing, habitat fragmentation, fire, dogs and cars, identify that most of these populations are failing and that the status of the koala as being vulnerable is well justified.[9]

In Victoria, populations on the mainland are not officially listed as threatened under the *Victorian Flora and Fauna Guarantee Act 1988* due to the fact that several populations are at high densities, but the species is listed as 'other protected wildlife under the *Wildlife Act 1975*, while similarly in South Australia the koala is protected under the *National Parks and Wildlife Act 1972* but not listed in any rare or threatened category. Nevertheless, these State populations face similar habitat loss threats as in other States.

In reviewing regional population trends[6], there is a widespread trend of decline in specific populations over an approximate timeframe of three generations. Such continued declines signify that many populations are inherently at risk if they continue to be managed at a State level and are not assessed within a national conservation framework. An EPBC vulnerable listing will give the Federal Environment Minister a stronger ability to intervene and arrest population declines. Considering current state managed populations, protection under State legislation is haphazard and a national approach is needed to ensure consistency. To reiterate, national protection afforded under the EPBC Act is the species' best chance for long term recovery and survival, and would provide nationwide consistency in areas not currently under State protection.

Knowledge of and threats to koala habitat

In their nomination to have the koala listed as vulnerable under the EPBC Act, the TSSC write that

"Koalas inhabit a range of arid, temperate, sub-tropical and tropical forest and woodland communities dominated by species of *Eucalyptus*[13]. They are also known to occupy vegetation communities dominated by other species, including *Corymbia*, *Callitris* and *Acacia* species, where *Eucalyptus* species are present [14, 15]. Major vegetation groups, defined by the Native Vegetation Information System (NVIS) framework, which fit the description of Koala habitat include eucalypt tall open forest, eucalypt open forest, eucalypt low open forest, eucalypt woodlands, eucalypt open woodlands, callitris forest and woodlands, and acacia forest and woodlands."

From a national perspective across all populations, by far the biggest threat facing the survival of koala populations is habitat loss from land clearing and fragmentation. Koalas have highly specific habitat requirements and are particularly sensitive to changes and disruptions to their surrounding habitat. Their limited movement capability means that they are unable, or reluctant, to cross gaps in vegetation and move within or among fragmented habitats. The requirement to do so with the increasing destruction of their habitat results in increased mortality from vehicle collisions and predation. Consequently, they have experienced population declines and local extinctions across their geographic range due to the clearing of eucalypt forests for agricultural and urban development.

Listings of Threatened Ecological Communities (TEC) under both State and Commonwealth environment legislation is one of the most effective ways of conserving specific koala habitat such as the critically endangered (EPBC Act) Swamp Tea-tree (*Melaleuca irbyana*) Forest of South-east Queensland. Ecological communities such as this, along with any other State of Federally listed eucalypt tall open forest, eucalypt open forest, eucalypt low open forest, eucalypt woodland, eucalypt open woodland, callitris forest and woodland, or acacia forest and woodland that have been identified as koala habitat provide protection from such threats as land clearing. It is imperative that all of the conservation tools available to the Commonwealth and State Governments under their respective environmental legislations are utilised to protect these ecological communities, in order to ensure adequate habitat is available and secured for the benefit of not only the koala, but numerous iconic native species of fauna and flora. Furthermore, identified key koala habitat types that are not yet listed under the EPBC Act should be prioritised for assessment. Clearly, effective protection of koala habitat is a vital step in the direction of the species' survival.

Increasing threats are recognised by the National Koala Conservation and Management Strategy:

Even in areas where high quality habitat is available, koalas may be threatened by factors that cause the death of individuals, and which may threaten the viability of a population if this mortality exceeds the reproductive capacity of the population[11].

Although koalas are present in a number of reserves throughout their range, the large majority occur on private land, and as a result the effective management of their habitat requires broad and strong protection to ensure isolated clearing and fragmentation is minimised. Urban expansion continues to threaten koalas, particularly in coastal regions, and this threat is exacerbated due to urban development bringing with it additional threats such as predation by dogs and vehicle strike.

<u>Estimates of koala populations and the adequacy of current counting methods</u>
The current distribution of the koala is not continuous across the species' range, and populations are separated as a result of cleared lands or unsuitable habitats[1], within most States, population densities range from high to very low. With a lack of estimates of current total numbers of koalas in Australia, and no direct measurements of past national population sizes, there is a greater need to be precautionary in managing the national population. In assessing the national trend, the TSSC's nomination to have the species listed under the EPBC Act states that:

"…the national trend in koala population size in strongly influenced by the trends in areas where the population is, or was, large relative to the initial national population estimate. That is, while small populations may exhibit substantial trends, they have little influence on the national trend even if they are regionally significant for genetic, ecological or other reasons."[3]

As data presented in the nomination suggests, the national population has declined over roughly the past three generations[4]. Furthermore, the nomination states that decline in urban and peri-urban areas are likely to continue - koalas have undergone a substantial reduction in numbers; and evidence discussed earlier shows that this is likely to continue. Additionally, the Australian Koala

Foundation's (AKF) Koala Habitat Atlas, a peer reviewed national population estimate using data collated from fieldwork and scientific review, has approximated the current national koala population to be under 100,000[5].

Appropriate future regulation for the protection of koala habitat

It is clear that the koala is in need of a nationally coordinated conservation strategy, convened under the EPBC Act through a National Recovery Plan, as would be available for the species if it were listed as vulnerable. A Wildlife Conservation Plan for a conservation dependent species could also have the potential to deliver a national approach. However, as the species meets the criteria for a vulnerable listing, which would offer significantly stronger protection than a conservation dependent listing and make available a greater range of EPBC tools for more effective koala conservation, it would be the single most effective measure that could be taken to assist in the species' survival.

In conclusion, HSI recommends that the koala (*Phascolarctos cinereus*) be listed as a threatened species under the EPBC Act, in accordance with the TSSC's recent nomination. We also stress that the prevention of further clearing of identified koala habitat or associated ecological communities is imperative in ensuring the species' survival and ability to adapt to climate change.

We appreciate the opportunity to comment on this important Senate inquiry for consideration by the Committee and look forward to the resulting increased protection for the Australian koala.

Yours sincerely,

Evan Quartermain
Program Officer

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1. Adams-Hosking (2009) in DEWHA. (2010). Threatened Species Nomination under the EPBC Act 1999: Phascolarctos cinereus (Koala) [form], p7.
2. Ibid., p10 and 20.
3. Ibid., p19.
4. Ibid., 'Koala population trends summary over relevant timeframe', table 2, p45
5. Australian Koala Foundation (AKF). (2010). Koala Habitat Atlas – Estimated koala status, available online at https://www.savethekoala.com/koalanumbers.html.
6. DEWHA, 2010, Threatened Species Nomination under the EPBC Act 1999: Phascolarctos cinereus (Koala) [form], 'Koala population trends summary over relevant timeframe', table 2.
7. Queensland EPA, 2007, Report on Koala Coast Koala Surveys 2005-2006, available online at http://www.derm.qld.gov.au/wildlife-ecosystems/wildlife/koalas/koala_plan/report_on_koala_coast_koala_surveys_20052006.html
8. Kerlin, D. & Tabart, D., n.d., Comments on the Consultation Draft National Koala Conservation and Management Strategy 2009-2014, Australian Koala Foundation, available online at https://www.savethekoala.com/policy.html, p6.
9. Ibid., p17.
10. McAlpine *et al*. (2006) in Rhodes JR, Callaghan JG, McAlpine CA, De Jong C, Bowen ME, Mitchell DL, Lunney Dand Possingham HP. (2008) Regional variation in habitat-occupancy thresholds: a warning for conservation planning. Journal of Applied Ecology 45:549-557, p554.
11. Ibid., p28.
12. *Environment Protection and Biodiversity Conservation (EPBC) Act 1999 (Cth)*, Part 13, div 1, sub 207A(1).
13. Martin and Handasyde, (1999) in DEWHA, (2010). Threatened Species Nomination under the EPBC Act 1999: Phascolarctos cinereus (Koala) [form], p7.
14. Kavanagh and Barrott (2001) in DEWHA. (2010). Threatened Species Nomination under the EPBC Act 1999: Phascolarctos cinereus (Koala) [form], p7.
15. Sullivan et al. (2003a) in DEWHA. (2010). Threatened Species Nomination under the EPBC Act 1999: Phascolarctos cinereus (Koala) [form], p7.