

## **Comments on TSSC “Answers to Questions on Notice dated 10 August 2011”**

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09 September 2011

My colleagues and I note the TSSC’s response to our supplementary submission and do not believe a rebuttal is required, except to observe that the TSSC’s response referenced their answers to questions on notice from the Melbourne meeting – this document was not available to us when we prepared our supplementary submission. Thus we offer the following comments.

We remark that using the TSSC’s approach to calculating the decline in the notional national Koala population, but incorporating the revised figures for the Mulgalands and coastal populations in NSW and QLD, that the decline would actually be rather greater than their calculated 31%; regardless of their additional metric (a “plausible lower bound”  $<$  or  $=$  200,000) the national decline exceeds the 30% threshold for listing. However, as detailed in our supplementary submission, we reject as unsound the TSSC’s assertion that the declines in western populations should be excluded from assessment of the decline in the national population because they are due to a “normal”, though prolonged, climatic “fluctuation” and that the drought has ended.

It is very much premature to assert that “The drought has ceased over most of the koala’s range:” – as aptly pointed out by Peter Menkhorst at the Melbourne hearing, the occurrence of one substantial La Niña episode does NOT mean a return to “normal” conditions – he cited the current return to the low winter rainfall pattern in VIC that was typical during the “drought”; a preliminary review of the rainfall in the QLD Mulgalands since the end of the La Niña event early this year also shows rainfall well below the long term average. We are not so sure that “its impact on koalas is well understood;” except insofar as we know the population crashed to the extent that it would meet the IUCN criteria for “Critically Endangered” if evaluated in its own right. But we are pretty well certain that the assertion that “it is more or less reasonable that loss of vegetation (and hence koala numbers) in previously drought-affected areas will be at least partly reversible” is anything but “reasonable”! Whilst (even assuming the “drought” really is “over”) it is possible that the population crash will be “partly reversible”, as we detail in our supplementary submission, at best this is likely to be a pretty small ‘part’ of the previous population.

As further detailed in our supplementary submission, we believe the TSSC’s conclusions about present climate trends in the western parts of the Koalas’ range to be highly questionable. The quoted “eyewitness reports” about the Federation Drought show that defoliation was being interpreted as tree death (it is even obvious that this must have been the case if the claim that Koala populations had recovered in 20 – 30 years is to be taken at face value; if the trees had actually died it would have taken much longer for them to regrow to the extent they could support Koalas - it takes at least 2 to 3 decades for trees to become functional as Koala habitat even in higher rainfall areas, let alone the arid zone or dry tropics – and even once established the trees could not then have become dripping with Koalas overnight). In stark contrast we know that now in extensive areas of QLD genuine tree death is evident (as detailed in our supplementary submission).

We strongly support the TSSC's call for "a nationally coordinated integrated program for population monitoring of threatened plant and animal species (and other species of cultural, evolutionary and/or economic significance)." More specifically we agree that there is a pressing need to roll out "A consistent, integrated national monitoring program for koalas" for the reasons outlined in the TSSC's answers to questions on notice. But based on extensive interactions in the past, this seems to us to be most unlikely to attract sufficient priority unless the Koala is listed! Furthermore, development of proper monitoring programs must not be used as a delaying tactic, however – EPBC Act protection of the coastal Koala populations is required NOW.

On the other hand, we strongly dispute the TSSC's position of regarding the Northern and Southern Koalas as essentially homogeneous. The TSSC appears to us to be reading into the requirements for the Minister to declare a group of organisms to be a "species" for the purposes of the EPBC Act, particularities that we are unable to discover in the Act. There seems to be an over-reliance on genetic distinctiveness (which we consider has been adequately demonstrated in any case). The 'conventional wisdom' that variation of Koalas is "latitudinal and apparently clinal" lacks a proper evidential basis and is largely reliant on derivative references. The quoted assessment by Finlayson (1934) relied on Oldfield Thomas' description of *Phascolarctos cinereus adustus* from specimens collected around Mundubbera and Eidsvold as representative of QLD Koalas – they are not. There certainly seems to be a "latitudinal" difference in Koalas, but there is no real evidence of a "steady gradation of characters" from North to South – rather a disjunct distribution of Northern and Southern types somewhere in northeastern VIC.

The plain reading of the EPBC Act shows that it contemplates protection of groups of taxa that are not necessarily separate biological species and contrasts with the TSSC's self-imposed regimen - and there are already precedents for this in EPBC listings. The claim that separate listing of Northern and Southern Koalas is contrary to IUCN guidelines is quite disingenuous – it is clear that the IUCN intends to discourage listings of sub-populations "within very small geographical areas", NOT groupings on the scale of a quarter of a whole continent! We certainly agree that it may be unwise to declare a relatively small subset, such as the Koalas hanging on with their fingertips in far south coastal NSW (let alone just the "Bermagui Koalas"), as a separate biological entity, or even perhaps the South Gippsland Koalas. But that is quite different to what is being suggested by us (and others) – there is a sound basis to recognise the differences between the Koalas generally distributed in NSW and QLD as distinct from those generally in VIC and SA, with further investigation being necessary to determine which of these major groups the Bermagui or Strzelecki Koalas should be "affiliated" with.

We look forward to learning of the outcome of the Inquiry's deliberations in due course and would be happy to provide any other advice or assistance if requested.