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ECONOMICS, ECOLOGY AND THE ENVIRONMENT

Working Paper No. 206

**Koala Extinction: Inefficient Conservation
Strategies Identified and Examined – Moral and
Ethical Issues**

by

Clem Tisdell

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¹ This short article is intended to highlight and elaborate on some significant findings in Tisdell, C.A., Preece, H.J., Abdullah, S. and Beyer, H.L. (2017, "Strategies to conserve the koala: cost-effectiveness considerations", *Australasian Journal of Environmental Management*, Vol 24, No 3, pp. 302-318. DOI: 10.1080/14486563.2017.1349693

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The *Economics, Environment and Ecology* set of working papers addresses issues involving environmental and ecological economics. It was preceded by a similar set of papers on *Biodiversity Conservation* and for a time, there was also a parallel series on *Animal Health Economics*, both of which were related to projects funded by ACIAR, the Australian Centre for International Agricultural Research. Working papers in *Economics, Environment and Ecology* are produced in the School of Economics at The University of Queensland and since 2011, have become associated with the Risk and Sustainable Management Group in this school.

Production of the *Economics Ecology and Environment* series and two additional sets were initiated by Professor Clem Tisdell. The other two sets are *Economic Theory, Applications and Issues* and *Social Economics, Policy and Development*. A full list of all papers in each set can be accessed at the following website:

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Koala Extinction: Inefficient Conservation Strategies Identified and Examined – Moral and Ethical Issues

Abstract

Outlines factors contributing to the disappearance of the koala in Australia and the declaration of it as being vulnerable to extinction in Queensland, New South Wales and the Australian Capital Territory. Treating sick and injured koalas is identified as an inefficient strategy for their conservation. Also, in many cases efforts by NGOs and others to save koalas in their neighbourhoods are likely to be ineffective. Reasons (including ethical and moral ones) for the adoption of these types of strategies are outlined. The question is also raised of the extent to which parochialism in the conservation of species is justified. To what extent is the conservation of species justified at a local scale when their existence is secure on a broader geographical scale?

Keywords: biodiversity conservation, ecological economics, environmental ethics, extinction of species, koala conservation, nature conservation, parochialism in conservation.

JEL Classifications: Q20, Q51, Q57

Koala populations in Australia have declined rapidly in recent years and the Koala has become extinct, or nearly so, in many areas. The koala is now listed by the Australian Government as vulnerable in Queensland, New South Wales and the Australian Capital Territory (Tisdell et al., 2017) but is considered to be secure in Victoria. Consequently, the IUCN lists its conservation status in Australia as a whole as being of least concern (Gordon et al., 2008). Nevertheless, the disappearance of the koala is of considerable concern to residents of those local jurisdictions and areas where this is happening. This has resulted in the adoption of a variety of strategies to save the koalas in these jurisdictions and areas. However, as discussed below, many of these strategies are not cost-effective in conserving koalas. This aspect is explored by Tisdell et al. (2017) who also consider why such strategies are adopted, including ethical and moral reasons for doing so.

Koala populations are threatened by a diverse set of factors. However, the fundamental factor is the nature of economic growth. Increasing urbanization is occurring in areas of prime koala habitat, thereby depriving koalas of food and shelter as well as increasing their risks of being attacked by domestic and feral dogs, and also being struck by vehicles. Their habitats in these

areas have also been greatly fragmented, making it difficult to impossible to maintain remnant populations in these areas. Most of these habitats are unable to maintain minimum viable populations of koalas. Furthermore, intensification of agriculture has resulted in a loss of tree cover to the detriment of koalas. It is doubtful whether protected areas are adequate to ensure the survival of koalas in many of the regions where they are disappearing. In addition, climate change is a threat to the existence of northern koalas (McAlpine et al., 2015). The high incidence of the sexually transmitted disease chlamydiosis (Polkinghorne et al., 2013) is another threat to koala populations. Contemporary climate change is a global effect of human economic activity and the high incidence of chlamydiosis might be elevated by stress placed on koalas by their altering environmental conditions.

While the abovementioned aspects are well covered in the relevant literature and are discussed by Tisdell et al. (2017), little or no attention has been given to the (cost) effectiveness of strategies to conserve the koala and to determine why such strategies are adopted and persist. These neglected aspects are addressed by Tisdell et al. (2017). They consider the hospitalization and treatment of sick and injured koalas and efforts (mainly associated with grassroots local koala conservation NGOs) to save koalas from local extinction where, despite such efforts, their long-term survival is doomed.



Tisdell et al. (2017) find that the cost of treating sick and injured koalas is quite high and is not very effective from a conservation point of view. The average cost of treatment may be as high as 1,500 AUD per koala, and only about a third of treated koalas survive and are returned to the wild. This raises the effective cost of the re-release of koalas to about 4,500

AUD. Koalas are returned to the original locality where they are found or as close as possible to this. Their prospects of survival on return may be low because they face the same threats that resulted in their hospitalization and treatment. Also in many cases, because of the loss of their habitat, the number of resident koalas already exceed the carrying capacity of environments to which they are returned.

One wonders from a purely conservationist point of view whether the money spent on treating sick and injured koalas would be better spent on securing more and improved habitat. Nevertheless, it is understandable why this inefficient conservation strategy persists. Reasons include:

- Ignorance of supporters of the conservation effectiveness of this policy;
- The strong empathy which Australians have with koalas, mainly as a result of their human-like features (Tisdell, 2014, Ch. 13, 14) and their iconic and cultural status (Tisdell, 2014, Ch. 7). Relief of any suffering of this species, therefore, is a major concern of many Australians, particularly the suffering attributable to human actions.

Apart from animal-welfare motives for supporting and treating sick and injured koalas (even if it is known that this policy is likely to be ineffective from a conservation point of view) it may be supported from a Kantian-like point of view. According to this perspective, the intent of an action is more important than (or at least



is highly valued) independently of its results. This approach to morality differs sharply from the common one which is only based on the valuation of the consequences of an action.

Efforts by NGOs and others to conserve koalas locally may also be motivated by this type of morality in cases where the long-term (or even shorter-term) survival of the koala is locally doomed. Once again, ignorance may have an influence. In addition, the following factors may influence their behavior:

- Local interventions can result in local koala populations surviving for longer than otherwise, thereby extending the period for which their presence can be enjoyed by residents and visitors;
- Members of NGOs presumably obtain utility from their membership of these bodies and this may sustain them even if their goals are unrealistic, or become unrealistic.



From the above, it can be concluded that individuals support ineffective policies for conserving koalas for different reasons. A further reason why some may support these policies is that it is less costly for them to do this than to address the disappearance of the koala effectively. To be cynical, this could be the motive of some developers. It is to their personal economic advantage to engage in conservation tokenism because it makes it less likely that their development initiatives (involving land use

changes threatening the koala's existence) will be squashed by social pressures. Examples include inadequate offsets to compensate for the loss of koala habitat due to development.

A vaccine has been developed to guard koalas against the occurrence of chlamydiosis (Polkinghorne et al., 2013). However, the use of the vaccine is likely to be relatively costly. Furthermore, its application will only constitute an effective conservation measure in areas where reducing the prevalence of chlamydiosis is a critical factor in ensuring the survival of koala populations. It will make little difference to the survival of koala populations in areas where other stressors are of overwhelming importance in the loss of koala populations, and bound to lead to their extinction.

Another issue raised by Tisdell et al. (2017) in their case study of the koala is the extent to which parochialism in conserving a species is justified when the existence of the species is secure on a broader geographical scale. This is a matter requiring more discussion and assessment. The IUCN generally assesses the conservation status of a species on a broad scale rather than at local levels.

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