South Australia's Proposed Biodiversity Act

Submission by
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I write in support of the proposed Act and its ambitions. It is a welcome addition to land and human behaviour management in South Australia. I have been privy to the submissions of the Community Alliance South Australia (CASA) and Biodiversity McLaren Vale (BMV) and broadly support their comments. I will not therefore seek to replicate those submissions.

However, I raise an issue integral to the premise and functioning of the Act, and that is good science. The management of South Australia's biodiversity needs to be based on the best available science, applied with wisdom. Best available applies to both the physical and social sciences and wisdom applies to all cultures.

In the Message from the Minister in the Discussion Paper, it is stated that:

First Nations peoples have been managing Country and living harmoniously on South Australia's lands and waters for more than 65,000 years. Their wisdom and perspectives can provide a meaningful contribution to address the biodiversity crisis, and we seek to recognise and acknowledge their respect for Country in the legislation.

This statement is incorrect and very misleading as a preamble to legislation.

I wish to point out that I am not an archaeologist but in my field of bi-cultural research, writing and land stewardship I need to be aware of contemporary debates and scientific understandings.

It is my understanding that there is absolutely no scientific evidence that Aboriginal people have occupied what is now South Australia '*for more than 65,000 years'.* And in fact, the evidence that there was human occupation of one small area of the continent of Sahul, the Madjedbebe rock shelter in Arnhem Land, at that time is scant and inconclusive. The dating at Madjedbebe is contested. Williams et al (2021) have provided a sound, scientific evaluation of the site, highlighting the problems arising from associating stone tools with termite material in a site that has undergone significant bioturbation.

No matter the contestation, Madjedbebe is considered to be an outlier site, that is, it sits well outside of the accepted. A more reliable dating is between 45,000-55,000 years and that only relates to several sites, not the continent or nation state of Australia.

I am concerned that a folklore has developed that imprecisely conveys the known data. And it is unacceptable for government authorities and particularly Ministers of the Crown to project this folklore when good science is required to underpin decision making and public understanding. 'living harmoniously' is also a rather subjective statement. Debates regarding the change to landscapes and eco-systems by human induced fire and loss of megafauna are pertinent. Another descriptor is perhaps required.

In addition, genomic data coming out of recent DNA research on the arrival of modern humans in Europe is also to be considered as to the migratory patterns of us homo sapiens (Mylopotamitaki et al, 2024). Current evidence is clear in placing a bracket around the same time frame, 45,000-55,000 for that arrival. Therefore, it is not likely, perhaps possible, for humans to have made their way across Asia and into Australia before that time frame, regardless of speed and efficiency, let alone time to establish viable populations along the way. The other consideration is the interbreeding of modern humans with Neanderthal and Denisovan populations – this can be timed by genomic data. All humans today carry one or both chromosomes of these earlier populations. In summary, the genetics suggest, if not are clear, that it is not possible for humans to arrive in Sahul-Australia earlier than 45-55,000 years ago.

The situation is summed up in the Encyclopedia Britanica: *The date of the first human arrival in Australia via Sahul remains contested, however. Some paleontologists and archaeologists are skeptical of the conclusions drawn from OSL dating at Madjedbebe and Nauwalabila I*, (https://www.britannica.com/place/Madjedbebe)

More specifically for South Australia, the oldest reliably dated sites are 40,000 years old for a site near Port Augusta (Walshe, 2012) and 45-50,000 years old for Warratyi Rock shelter in the Flinders Ranges (Hamm et al, 2016). But these dates are not applicable statewide, and a more nuanced description best be used. What happened in the north is not the same as in the south. People are part of an ecosystem, and that element of description needs to be accurate as much as flora and fauna.

In addition, what is meant by South Australia's waters in the statement '*living harmoniously on South Australia's lands and waters for more than 65,000 years"*? Does it refer only to inland waterways and water bodies or the coast? The South Australian coastline is only c7,000 years old as that is when sea levels stabilised post the ice age and the coastline and coastal waters as we know them were formed.

I draw these matters to your attention as the Biodiversity Act, and discussion about it, is too important to be muddied by inconclusive science and ill-informed statements. If western science is to be used to determine biodiversity requirements as well as the length of human occupation of sections of this continent and its eco-systems, that science best be uncontested. Truth telling is truth telling and I sincerely request that those responsible for the drafting and administration of this Act become familiar with the science. Science is science no matter the discipline.

Yes, Aboriginal peoples need to be included in state government-initiated land management processes, and yes, Aboriginal people's description of their occupation of their Country according to their tradition is to be respected. And yes again, a cultural tradition that has the concept of 'enoughness' is also to be respected as our incoming cultural tradition(s) does(do) not know when to stop (consumption and degradation).

I support the ambitions as outlined in Topic 1 – *Biodiversity and South Australia's First Nations people*.

However, there is one point under Topic 1 requiring clarification or substantiation:
'*There are over 30 Aboriginal First Nations in South Australia that have lived on these lands for thousands of generations'.*

A generation is normally accepted as between 20 to 30 years, so let's just take the midpoint, 25 years. Thousands means plural. 2,000 times 25 is 50,000; 2,000 times 30 is 60,000. This again need clarification and a reliable refence, as in the endnotes used for other data in the Discussion Paper. It is unlikely that the over 30 Aboriginal first nation groups now referred to have lived on South Australian land for 50,000-60,000 years as pointed out in this discussion. Furthermore, the time at which each distinct cultural group evolved is unknown. 10,000 years ago, Gulf St Vincent did not exist. How can we know when the three contemporary cultural-language groups, that now use the gulf to describe boundaries of Country, evolved as distinct cultural-language groups? It certainly wasn't 65,000years ago. More accurate language, not generic statements or folklore, is required to acknowledge and respect Aboriginal cultural groupings and for all South Australians to have a better understanding of our bi-cultural history.

In summary, it is my understanding that there is no reliable evidence for occupation of sections of this continent beyond 45-55,000 years and parts of South Australia for beyond 40,000-45,000 years (50,000 at an extreme). And like ecosystems being specific to place, so is the length of human occupation and intervention. That needs to be clarified and accurately represented by government at all times and in the discussion on this legislation.

References

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