



# Sustainable Population Australia Inc.

**Patrons:** Dr Katharine Betts, Hon. Bob Carr, Dr Paul Collins,  
Prof Tim Flannery, Em Prof Ian Lowe  
**Youth Ambassador:** Ms Bindi Irwin  
[www.population.org.au](http://www.population.org.au)

PO Box 85  
Deakin West ACT 2600

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Committee Secretary  
Senate Standing Committees on  
Environment and Communications  
PO Box 6100  
Parliament House  
Canberra ACT 2600  
[ec.sen@aph.gov.au](mailto:ec.sen@aph.gov.au)

## Sustainable Population Australia

### Submission to the Senate Inquiry into Australia's faunal extinction crisis

#### INTRODUCTION

Sustainable Population Australia (SPA) is a non-partisan advocacy group seeking to establish an ecologically sustainable human population. We are a Registered Environment Organisation and have ENGO Observer Status with the UNFCCC. We encourage informed public debate about how Australia and the world can achieve an ecologically, socially and economically sustainable population. SPA exists to provide expert information to educate the general public and dispel the myths surrounding population issues, and to influence public policy in relation to these matters.

#### TERMS OF REFERENCE TO BE ADDRESSED IN THIS SUBMISSION

This submission will address points (a) (d) and (l) of the terms of reference:

- the ongoing decline in the population and conservation status of Australia's nearly 500 threatened fauna species;
- the adequacy of Commonwealth environment laws, including but not limited to the Environment Protection and Biodiversity Conservation Act 1999, in providing sufficient protections for threatened fauna and against key threatening processes;
- any related matters.

#### OVERVIEW

The establishment of this Senate Inquiry is an important step towards national recognition that Australia's native animals and birds are threatened by human activity. We note however that

the terms of reference do not include the plant world, on which fauna rely for food and shelter. Indeed, the clearing of vegetation is a major factor in the survival pressures on our fauna.

This submission will not address the technical and scientific statistics regarding the decline of native fauna – for which the evidence is regrettably overwhelming – nor will we comment in depth about environmental laws. This submission will focus on one of the key drivers of fauna decline, namely the destruction of habitat.<sup>1</sup> In turn, a key underlying cause of this habit loss is the ever-increasing numbers of humans living on this continent, and the encroachments this causes via expanding urban settlement and agricultural activities.

We draw attention to the well documented links between increasing human numbers and a reduction in native animal, bird, and plant numbers. Population growth is best viewed as an underlying process, which intensifies and exacerbates numerous other proximate threats to biodiversity. It is readily apparent that the destruction of habitat by urban sprawl is a direct effect of population growth, but perhaps less obvious are the second-order effects of population growth, such as the problems of land degradation and biodiversity loss linked to agricultural activities (e.g. land clearing), which are strongly linked to the need to produce not only food and fibre for the domestic population, but also agricultural and resource exports to pay for imports. Such export-oriented production is a function of population size and growth rate, affluence, and international debt levels.<sup>2</sup>

SPA believes that population growth should not be treated as an exogenous variable which is assumed as a ‘given’ and thus not amenable to human control. Population growth needs to be recognized as a key threatening process to Australia’s environment and sustainability, and the management (and stabilisation) of our population size should be included as a goal of an explicit federal population policy. We end this submission by concluding that a government policy to responsibly regulate our human numbers will go a long way towards halting the rapid land clearing that is causing the extinction crisis, and allow our still-existing native animals and birds to recover and thrive.

Stabilisation of Australia’s human population numbers is the best outcome for wellbeing of Australians, for biodiversity, environmental integrity, and maximising the alleviation of climate change.

Good government would achieve both the protection of the fauna, flora and ecosystems of this continent as well as the social and economic wellbeing of existing and future Australian residents. The two things are not incompatible, as long as the scale of human activities is contained.

### **Term of Reference (a): the ongoing decline in the population and conservation status of Australia’s nearly 500 threatened species**

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<sup>1</sup> Brendan Wintle and Sarah Bekessy, ‘Let’s get this straight, habitat loss is the number-one threat to Australia’s species,’ *The Conversation*, 17 October 2017, <https://theconversation.com/lets-get-this-straight-habitat-loss-is-the-number-one-threat-to-australias-species-85674>

<sup>2</sup> Australian Conservation Foundation, ‘Key Threatening Process Nomination: Human population growth in Australia,’ 22 March 2010. <http://population.org.au/articles/2018-07-29/growth-squeezes-species>

Globally, Australia is part of a much greater extinction process, so large that it has been termed ‘the Sixth Extinction’, the fifth one having been the end of the dinosaurs. The concept that the world has transitioned from the Holocene to the Anthropocene, a new geological epoch in which human beings are responsible for the destiny of the planet, just as an asteroid did in bringing about the fifth extinction, is now widely accepted. Never before has any one species dominated the entire planet in this way, and to such detriment.

Every day worldwide plants and animals are going extinct, perhaps upwards of 36,000 of them per annum. “Before human populations swelled to the point at which we could denude whole forests and wipe out entire animal populations, extinction rates were at least ten times lower. And the future does not look any brighter. Climate change and the spread of invasive species (often facilitated by humans) will drive extinction rates only higher”<sup>3</sup>.

The 2016 ‘Living Planet Report’<sup>4</sup> by WWF, the London Zoological Society and Global Footprint Network, has predicted that by 2020 the world will have seen a more than two-thirds drop in the numbers of wild vertebrates over a fifty year period. Commenting on the report, Alistair Currie of the UK group ‘Population Matters’ observed these figures show that ‘the current rate of extinctions is 100 times what would be considered normal without the impact of human activity’<sup>5</sup>.

The IUCN (International Union for the Conservation of Nature) website states “**Species are critical for a healthy planet, but a growing human population is placing them under enormous pressure. Habitat destruction, invasive species, overexploitation, illegal wildlife trade, pollution and climate change are threatening the survival of species worldwide**”.

Internationally renowned conservationist Sir Peter Scott, founder of the World Wildlife Fund, stated in an interview “When we started the World Wildlife Fund its objective was to save endangered species from extinction ... we have failed completely ... if we’d put all that money we had collected into condoms we might have done some good.”<sup>6</sup>

US astrobiologist and adviser to NASA, David Grinspoon has recently said, “If the scale of our influence exceeds the scale of our self-awareness, we have an inherently dangerous and unstable situation .... And, of course, human overpopulation in itself is the uber problem that exacerbates all others”<sup>7</sup>.

The causal role of human population growth in the sixth extinction has been clearly demonstrated in research by Dr Jeffrey McKee and colleagues. Dr McKee summarises their findings as follows:

*Right now there are over 7 billion people on this planet, and our population is still growing dramatically. Every day we add about 214,000 people to the planet. Keep in mind that is the net gain of 214,000 people, births minus deaths.*

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<sup>3</sup> <http://www.nature.com/news/protect-and-serve-1.16514>

<sup>4</sup> [http://wwf.panda.org/knowledge\\_hub/all\\_publications/lpr\\_2016/](http://wwf.panda.org/knowledge_hub/all_publications/lpr_2016/)

<sup>5</sup> <https://www.populationmatters.org/wwf-facing-next-global-mass-extinction/>

<sup>6</sup> <https://jonausten.wordpress.com/2016/10/15/talks-with-the-wwf-about-overpopulation/>

<sup>7</sup> <https://mahb.stanford.edu/blog/planetary-stewardship-anthropocene-era-dialogue-astrobiologist-david-grinspoon/>

*Meanwhile there is an equally profound trend for other species on this planet – they are going extinct at the highest rate since the extinction that wiped out most dinosaurs 65 million years ago. In the geological past, Earth has witness five mass extinction. There is little scientific doubt that we are now in a sixth mass extinction.*

*It turns out that these two trends, human population growth and extinctions of plants and animals, are closely related. In the year 2000, we gathered data from 144 nations on human population densities and the number of threatened species of mammals and birds, and found a close correlation. We derived an equation that predicted the number of threatened species based on just two variables, population density and the number of species present in each country. In 2010, we revisited that equation with updated data, and found that we had accurately predicted the rise in the number of threatened species.*

*Should these trends hold, they paint a dire picture for our future. The average nation should expect a rise of nearly 11% more threatened species by 2050. This is on the basis of human population growth alone, not counting factors such as global climate change which will exacerbate the extinction problems.*

***If we are to minimize the consequences of the mass extinction we are in, conservation efforts must continue and even expand, but it is now clear that all conservation must factor in the effects of our growing human population.<sup>8</sup>***  
*(emphasis added)*

The IPCC (the UN's Intergovernmental Panel on Climate Change) has identified biodiversity loss worldwide occurring as a result of activities such as land-clearing, pollution, deforestation, desertification, habitat fragmentation, and the introduction of non-native species. Latterly climate change is exerting additional pressures. The rate of biodiversity loss is greater than the natural background rate of extinction<sup>9</sup>. By 2080 up to 20% of coastal wetlands worldwide will be inundated by sea level rise. Land-based animals in those areas will be forced to move to new habitats, with potential species loss if they are unable to adapt, or loss of other species if they outcompete them in the new habitats.

There is no doubting that human population increase is creating havoc with species survival on the planet. And it is similarly so in Australia. Australia has the fourth-highest level of animal species extinction in the world. Indeed, Australia is exceptional as a developed country, to have both high population growth rate and deteriorating status of endangered species. This is no coincidence – as the WWF Living Planet Report finds, in many countries where human population is near stable, status of natural ecosystems and endangered species are improving.

When Australian species go extinct, the biological loss is enormous given the endemic nature of so many of them: 94% of our amphibians, 93% of our reptiles, 69% of our mammals and 46% of our birds are endemic. Once they are gone, they are gone forever.

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<sup>8</sup> <http://www.wamc.org/post/dr-jeffrey-mckee-ohio-state-university-human-population-and-animal-extinction>.

See also: McKee, Jeffrey, Erica Chambers, and Julie Guseman. "Human population density and growth validated as extinction threats to mammal and bird species." *Human Ecology* 41, no. 5 (2013): 773-778.

<sup>9</sup> <https://www.ipcc.ch/pdf/technical-papers/climate-changes-biodiversity-en.pdf>

In April 1994 a report released by the Australian Academy of Sciences stated: “Australia’s land mass, though large, is less rich than other continents in many biologically important elements. As a consequence, its ecosystems are relatively fragile, and human impact on the environment is particularly severe”<sup>10</sup>.

In December 1994 a report from the House of Representatives Standing Committee for Long Term Strategies (more commonly known as the Jones Report) stated: “There can be little doubt that continuing population growth in Australia will lead to further local extinctions of plant and animal species, particularly as much population growth is in areas of above-average biodiversity”.<sup>11</sup>

Australia’s CSIRO describes the international evidence for significant impacts of climate change on biodiversity as ‘compelling’ and that these changes will be ‘unavoidable’.<sup>12</sup> For Australia it has predicted that, compared to 1990 levels, temperatures in 2030 will be 0.7-0.9 degrees higher in coastal areas and 1-1.2 degrees in inland areas. Such temperature increases must lead to species loss.

### ***Wetlands***

The relevant natural habitat for threatened species includes Australia’s forests and woodlands, as well as coastal and inland wetlands. These wetlands have been under constant pressure and decline for more than a century:

About one-third of Australia’s river length has lost between 20 and 100 per cent of the kinds of aquatic invertebrates that previously lived there. Wetlands in Australia, particularly in southern Australia, are also in decline. As shown in Table 5, almost one-third of the 851 nationally important wetlands in Australia in 2001 had threatened water regimes. Altered flow regimes have resulted in the loss of 90 per cent of floodplain wetlands in the Murray-Darling Basin, 50 per cent of coastal wetlands in New South Wales and 75 per cent of wetlands on the Swan Coastal Plain in south-west Western Australia.<sup>13</sup>

Urbanization is placing further stress on wetlands,<sup>14</sup> as are regional economic activities, for example in the Fitzroy Basin adjacent the Great Barrier Reef, where “key drivers of change include poor water quality [e.g. agricultural runoff], climate extremes, coastal development including ports and shipping, and the cumulative impacts of these pressures.”<sup>15</sup>

There is growing evidence that the most serious threat to the conservation of waterbirds in Australia “is habitat loss and degradation, primarily through the development of water resources upstream of significant wetland habitats,” by means of “the building of dams,

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<sup>10</sup> ‘Joint Statement of the Population Working Party 2040’, Australian Academy of Sciences, 1994

<sup>11</sup> ‘Australia’s Population Carrying Capacity: One Nation – Two Ecologies,’ p. 69

<sup>12</sup> <https://www.csiro.au/en/Research/LWF/Areas/Ecosystems-biodiversity/Monitoring-biodiversity/Biodiversity-and-climate-change>

<sup>13</sup> *Year Book Australia, 2009–10*, “Australia’s Biodiversity,”

<http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/1301.0Feature+Article12009–10>

<sup>14</sup> Burgin, Shelley, Michael JM Franklin, and Loren Hull. “Wetland loss in the transition to urbanisation: a case study from Western Sydney, Australia.” *Wetlands* 36, no. 6 (2016): 985-994.

<sup>15</sup> Johanna Johnson, Jon Brodie & Nicole Flint, *Status of marine and coastal natural assets, Fitzroy Basin region*, Fitzroy Basin Association, Version 3: 31 July 2015, p. 4.  
<http://gpcl.com.au/EnvironmentDocuments/FitzroyBasinAssociationStatusofMarineandCoastalNaturalAssetsFitzroyBasinRegion-31July2015.pdf>

diversion of water and earthworks on floodplains.”<sup>16</sup> These infrastructural changes are driven, directly or indirectly, by increased overall demand for water by a growing human population.

To provide just one more example of human population pressures on wetlands, the threatened status of the Far Eastern Curlew, the largest and one of the most threatened migratory shorebirds in the world, is under further threat due to increasing human encroachment in Australian coastal areas:

Growing demand for coast-side developments and the ever-increasing amount of human activity on our beaches has meant that, for Far Eastern Curlews, who are notoriously wary of humans, there is less and less undisturbed feeding and roosting habitat at the southernmost end of their migration journey. This makes the places in Australia that still support large numbers of Far Eastern Curlews even more important to the survival of this species.

Moreton Bay in Queensland is one such place. The vast mudflats of Moreton Bay provide a haven for over 40,000 overwintering migratory shorebirds each year, including over 3,000 Far Eastern Curlews. For this reason, it is recognised by BirdLife as both an Important Bird & Biodiversity Area (IBA) and a Key Biodiversity Area (KBA).

Moreton Bay is also an important place for juvenile Far Eastern Curlews, with many young birds remaining in the bay for up to two years after their first southward migration. Here, they master the foraging skills they’ll need to sustain them for many migrations to come. In theory, Moreton Bay should continue to remain a safe place for Far Eastern Curlews. Listed under the Ramsar Convention on Wetlands, it’s protected under this international treaty and Australian domestic law as one of the most important wetlands in the world.

Yet, it’s possible that the Australian Government could soon approve a marina and residential development within the Moreton Bay Ramsar site, destroying important habitat for Far Eastern Curlew, and setting a dangerous precedent for the future protection of Ramsar-listed wetlands across the world.<sup>17</sup>

Recent media reports indicate the developer, Walker Corporation, is lodging the third application in as many years for building a new port facility, with room for more than 6,000 residents, a hotel and convention centre, and a 1,000-space carpark, in the middle of this Ramsar-listed wetland.<sup>18</sup>

### ***Deforestation and habitat loss***

As at 2011, the extent of Australia’s forests (including woodlands) had diminished by nearly half since the beginning of European settlement, and reduced from ~30% of Australia’s land

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<sup>16</sup> Kingsford, R. T. "Conservation of waterbirds in Australia." *Pacific Conservation Biology* 19, no. 4 (2013): 366-378.

<sup>17</sup> "Curlew crisis deepens: vital Australian wetlands under threat," Birdlife International, 19 October 2017, <https://www.birdlife.org/worldwide/news/curlew-crisis-deepens-vital-australian-wetlands-under-threat>

<sup>18</sup> Ben Smee, "Developer criticised for plan to dredge Queensland wetland and build 3,600 homes," 12 June 2018, <https://www.theguardian.com/australia-news/2018/jun/12/developer-criticised-for-plan-to-dredge-queensland-omwetland-and-build-3600-homes>



area to 16% or 125 million hectares.<sup>19</sup> Much of the remaining forest is severely degraded and fragmented<sup>20</sup> thus less suitable for fauna habitat. Continued clearing for agricultural use and urban development pose ongoing threats to fauna habitat.

The Australia Koala Foundation has no doubt that the greatest threats to koalas in Queensland's south-east is loss of habitat due to land clearing and urban encroachment, both of which are human-induced. A study by WWF scientist Martin Taylor has found that in other areas of Queensland and NSW koalas are dying as a consequence of habitat loss from tree clearing, estimating that more than 5000 koalas died as a consequence of tree clearing in the four years up to mid-2016<sup>21</sup>.

A recent study of the ecological impacts of land clearing in Queensland noted that: "While a substantially smaller area than that cleared for pasture, clearing in urban areas has implications for many threatened species, including the 97 threatened species occurring in Brisbane, and threatened species occurring in 17 other cities across Queensland (Ives et al. 2016)."<sup>22</sup>

According to a Sydney University seminar held earlier this year, Australia is losing two million hectares of land to urban sprawl annually.<sup>23</sup>

A striking example of how human population growth and urban sprawl combine to impact upon habitat loss for native fauna is the growth of the city of Perth in Western Australia. Between 1990 and 2015 the population of Perth grew from 1.19 million to 2.04 million people, an increase of nearly one million. During that time the spatial extent of the city increased by 45 % or an amount of 320 square kilometres.<sup>24</sup> This expansion has destroyed much natural habitat for native species, including for the threatened Carnaby's black cockatoo.

According to WWF, "The biggest threat to the Carnaby's black cockatoo is habitat loss in its rural and urban environments. Large-scale clearing for agriculture in the Western Australian Wheatbelt has removed or fragmented much of the bird's breeding habitat, and ongoing clearing for urban development on the Swan Coastal Plain is greatly reducing the extent of its feeding habitat."<sup>25</sup>

### ***Environmental degradation due to population pressures***

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<sup>19</sup> Based on data from: ABARES, *Australia's State of the Forests Report 2013*, Executive Summary, p. 2; and Bradshaw, Corey JA. "Little left to lose: deforestation and forest degradation in Australia since European colonization." *Journal of Plant Ecology* 5, no. 1 (2012): 109-120, Figure 1, and p. 111.

<sup>20</sup> Bradshaw, Corey JA, already cited.

<sup>21</sup> <http://www.wwf.org.au/news/news/2018/nowhere-to-go-koala-sums-up-the-concerns-of-australians>

<sup>22</sup> Reside, April E., Jutta Beher, Anita J. Cosgrove, Megan C. Evans, Leonie Seabrook, Jennifer L. Silcock, Amelia S. Wenger, and Martine Maron. "Ecological consequences of land clearing and policy reform in Queensland." *Pacific Conservation Biology* 23, no. 3 (2017): 219-230, p. 220.

<sup>23</sup> <https://sydney.edu.au/news-opinion/news/2018/03/08/why-we-need-to-make-room-for-food.html>. (This figure would likely also include an increment for conversion from agricultural to urban use).

<sup>24</sup> MacLachlan, Andrew, Eloise Biggs, Gareth Roberts, and Bryan Boruff. "Urban growth dynamics in Perth, Western Australia: using applied remote sensing for sustainable future planning." *Land* 6, no. 1 (2017): 9.

<sup>25</sup> <http://www.wwf.org.au/what-we-do/species/carnabys-black-cockatoo#gs.JQKmX7c>; see also: Johnstone, R.E., Johnstone, C. and Kirkby, T. (2011). *Black-cockatoos on the Swan Coastal Plain*. Report prepared for the Department of Planning, Western Australia, by the Western Australian Museum, Welshpool, Western Australia. <http://www.nrm.wa.gov.au/media/41434/black-cockatoos-on-swan-coastal-plain.pdf>

The 2016 *State of the Environment Report*<sup>26</sup> compares the condition of Australia's natural environment from 2016 to 2011. The report states "the condition of the environment in certain areas is, however, poor and/or deteriorating. These include the more populated coastal areas and some of the growth areas within urban environments, where human pressure is greatest (particularly in south-eastern of Australia)". Plus, there is "the extensive land-use zone of Australia, where grazing is considered a major threat to biodiversity".

It is no surprise that "certain areas" happen to be where towns and cities are located and where primary production takes place. Unpick the words and you find that "certain areas" are those where people live.

The report further states: "With increasing coastal population comes increased pressures on the environment, .... Of particular importance is urban sprawl, which results in natural habitats being lost to housing, roads and supporting facilities. Simultaneously, native vegetation is also converted to agriculture as food production intensifies to meet growing demands."

The report says that "the main pressures affecting the Australian environment today are the same as in 2011: climate change, land-use change, habitat fragmentation and degradation, and invasive species. There is no indication that these have decreased overall since 2011" – which appears to be a subtle way of saying there has been an increase.

The report continues: "Some individual pressures on components of the Australian environment have decreased (e.g. commercial fisheries), and there is evidence that some pressures have increased (e.g. dumped wastes in the marine environment and invasive species generally). The impacts associated with many, however, remain unclear." This is surely telling us that the Environment Department with the resources it has at its disposal, is unable in many cases to explain these pressures and/or their impacts. The report goes on to say, "In addition, the interactions between pressures can result in cumulative impacts, amplifying the threat faced by the Australian environment." Clearly Government funding is not providing sufficient for research to quantify this.

The SoE report anticipates intensifying stresses from climate change, to which population growth in Australia is a disproportionately large contributor, given our high emissions per person: "Evidence shows that the impacts of climate change are increasing, and some of these impacts may be irreversible. In addition, Australian's rainfall has been variable during the past 100 years, particularly the past 40 years, with declining long-term rainfall observed across much of southern Australia".

It concludes, "Australia's biodiversity is continuing to decline (with some exceptions noted in SoE 2016 thematic reports). The poor state and declining trend of Australia's biodiversity are an issue of particular concern. For instance, the number of species listed as threatened under the EPBC Act continues to rise. Since 2011, the number of species listed in the critically endangered category has increased by 31, and 2 species have been reported as likely extinct. Overall pressures on biodiversity have mostly increased since 2011, and the status of biodiversity has mostly decreased, but our information base remains inadequate to robustly assess state and trends. New approaches are needed to prevent accelerating decline in many species".

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<sup>26</sup> <https://soe.environment.gov.au/>



Since that 2016 report, the International Union for the Conservation of Nature has released the 2018 *IUCN Red List of Threatened Species*<sup>TM 27</sup> with worrying commentary which not only affirms the SoE report but demonstrates a worsening of the situation with 106 Australian species now listed as critically endangered. The IUCN's scientific investigations reveal that many of Australia's reptiles are facing severe threat from climate change, invasive species and habitat loss from land-clearing for development (which SPA notes are all directly attributable to increasing human numbers). Seven percent are now threatened with extinction. The IUCN Red List now contains 975 Australian reptile species, which consists of almost all our continent's reptiles.

**Term of Reference (d): the adequacy of Commonwealth environment laws, including but not limited to the Environment Protection and Biodiversity Conservation Act 1999, in providing sufficient protections for threatened fauna and against key threatening processes.**

In 2010 the Australian Conservation Foundation submitted a nomination to the Threatened Species Scientific Committee of the Department of Environment, Water, Heritage and the Arts, naming Australia's human population growth as a key threatening process under the *Environment Protection and Biodiversity Act 1999*.

Almost a decade on there is arguably no better source of information to elucidate this term of reference and SPA suggests the Committee should download and review the complete document, which can be found at <http://population.org.au/articles/2018-07-29/growth-squeezes-species>

The nomination acknowledged that direct intervention by government in individual decisions about reproduction was inappropriate. Therefore, tackling immigration numbers, which contribute around 62 % of annual population growth, must be the primary means of addressing the issue of growing human population numbers on our continent. SPA notes, however, that in subsequent years the 'baby bonus' was introduced to Australia showing ironically that governments are willing to intervene in reproductive choices in order to bring about an increase in numbers, but not a decrease. Like the ACF, SPA supports the view that we must deal with this principally by the reduction of immigration to a level that allows population stabilisation, while also shunning any 'closed borders' or xenophobic approaches to the issue.

It is a matter of regret that faunal extinctions have continued to increase and this nomination of human population numbers as a key threatening process was not accepted. SPA still believes that it would be wise to accept this nomination so that population growth can be assessed as an endogenous, policy-relevant factor in the assessment and management of threats to the environment and to threatened fauna in particular.

**Term of Reference (l): any related matter**

***Monitoring and enforcement***

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<sup>27</sup> <http://www.iucnredlist.org/>

The ineffectual monitoring and enforcement of Commonwealth environment and biodiversity legislation is a matter for concern. A just-released study has found that 7.6 million hectares of threatened species habitat was destroyed between 2000 and 2017. The research found at least 90 per cent of destroyed habitat was never even the subject of an application under federal law.<sup>28</sup>

It has also been reported that the rate of land clearing in northern NSW more than tripled after the Berejiklian government eased native vegetation protection in 2017, to the rate of about 14 football fields of koala habitat per day.<sup>29</sup> Similar egregious spikes in land clearing have occurred in Queensland in recent years, and in past decades.<sup>30</sup>

These alarming findings highlight a much bigger issue which is the lack of systematic national monitoring and analysis, through earth observation satellite data, of the ongoing extent of habitat destruction. The exposure of this extent is being left to one-off, ad hoc studies which, though very welcome, are not able to show the full picture. When we are talking about the unceasing chipping away of the natural habitat for threatened species on our unique continent, we must not settle for ‘out of sight, out of mind.’

An important step in understanding a problem is to be able to measure it according to continent-wide standards, and for the resultant data and findings to be publicly available for use in environmental decision-making and planning. We cannot understand and address the problem if we do not know the extent of habitat losses in the past and the present. Fortunately, the existence of archival satellite imaging datasets means we can perform comprehensive time-series assessments, provided there is adequate funding for such studies.

However, the lack of funding support for such studies has been noted by Dr Megan Evans in her study of deforestation (which by extension applies similarly to habitat loss for threatened species):

Despite the introduction of a raft of policies aimed to reduce deforestation over the last 40 years, monitoring, evaluation and enforcement have been hampered by a lack of resources and information (Bartel 2003; Bricknell 2010; Nicol et al. 2014). The advent of satellite imagery was at one stage heralded as a new beginning that would enable greater monitoring and evaluation, and encourage compliance with clearing regulations (Bartel 2005; Purdy 2010). We have, however, yet to see a revolution in our understanding of native vegetation policy effectiveness in Australia. **A key step required to deliver a more effective policy mix for addressing deforestation is therefore to invest a greater proportion of resources into monitoring, evaluation and compliance.**<sup>31</sup> (emphasis added)

Given that state governments also have an important role in land management, there is a need for much greater Commonwealth funding of co-operative national approaches to

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<sup>28</sup> Michael Slezak, ‘The habitats of threatened species are shrinking, despite laws set up to protect them,’ ABC Online 7 September 2018, <http://www.abc.net.au/news/2018-09-07/habitats-of-threatened-species-shrinking-despite-federal-laws/10208406>

<sup>29</sup> Peter Hannam, ‘Revved up’: Land being cleared at the rate of 14 football fields a day in northern NSW,’ SMH, 7 September 2018, <https://www.smh.com.au/environment/conservation/revved-up-land-being-cleared-at-the-rate-of-14-football-fields-a-day-in-northern-nsw-20180906-p5026l.html>

<sup>30</sup> “Queensland is one of the world’s worst places for deforestation,” *The Economist*, 18 February 2018; Megan C. Evans, “Deforestation in Australia: drivers, trends and policy responses.” *Pacific Conservation Biology* 22, no. 2 (2016): 130-150.

<sup>31</sup> Evans, already cited, footnote 30, p. 146.

measurement, monitoring and analysis of habitat loss relevant to threatened species, with lead funding provided by the Commonwealth.

The somewhat erratic performance of state government regulation and enforcement in this area, highlights the need for much stronger monitoring at a national level.

In addition, there must be effective enforcement of current laws and regulations relating to threatened species habitat. Based on current evidence, much of these are honoured in the breach.

Despite the urgent need for greater funding for monitoring, enforcement, management and threatened species recovery planning, the trend is in the opposite direction – the resources for Commonwealth government programs in this area are going backwards. We note that as reported in *The Guardian*<sup>32</sup>, a submission by the Community and Public Sector Union (CPSU) details the results of a CPSU survey of public servants working in the environmental area, which found that:

“Nearly nine in 10 (87%) said Australia’s effectiveness in protecting critical habitat was poor or very poor, and four in five (82.6%) thought that adequacy of the management and extent of the national reserve system, stewardship arrangements, covenants and connectivity through wildlife corridors were poor or very poor.”

Underlying this failure are ongoing and deep funding cuts which have affected the department’s ability to support programs that protect critical habitats for threatened fauna and enforce environmental regulations.

SPA fully endorses the CPSU’s call for a significant increase in funding for biodiversity and conservation work, an annual \$200m investment for recovery plans, and an expanded national reserve system to protect habitat with investment of at least \$170m a year.

SPA also calls for a major ramping up of national monitoring and assessment, as outlined above.

SPA also endorses the recommendation by the Australian Conservation Foundation for penalty provisions of the Environment Protection and Biodiversity Conservation Act 1999 to apply across all land tenures. SPA further supports additional ACF recommendations for a complete overhaul and updating of Commonwealth environmental legislation and for establishing a new national critical habitat register.<sup>33</sup>

### ***The need for an effective population policy***

With our comments on ToR (a) and (d) we have highlighted the relationship between species extinction and human population increase. Without tackling this issue, any other recommendation the Committee chooses to make will be battling head-winds, and any progress is likely to be short-lived.

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<sup>32</sup> Lisa Cox, “Threatened species inquiry told public servants think Australia is failing,” *The Guardian*, 7 September 2018, <https://www.theguardian.com/environment/2018/sep/07/threatened-species-inquiry-told-public-servants-think-australia-is-failing>

<sup>33</sup> ACF, *Australia’s Extinction Crisis: Protecting Critical Habitat*, March 2018. <https://tinyurl.com/y7sv699h>

It is sometimes claimed that human population growth is not an important issue and that threats to the environment are solely due to levels of consumption or poor planning and environmental management. However, the identification of the key drivers of environmental impact ought not to be a question of a binary 'either/or', but an inclusive 'both/and'. Population growth contributes an irreducible increment to growth in demand for land and resources, to output of wastes, and to requirements for greater planning and management complexity. The ACF nomination document for population as a key threatening process, makes some astute observations on these matters:

It may well be the case that Australia could accommodate some additional millions of people sustainably, if only our planning systems, our patterns of consumption, our lifestyles, our environmental laws, our built infrastructure and our technology were all very different and much improved over the current state of affairs. But those are all long-term changes, the outcome of which remains highly uncertain; to assume that they will all occur, on the scale and timeframe needed to avert irrevocable pressure on our biodiversity, would be rash indeed. ....

If those who are optimistic about rapid lifestyle changes and technological improvements are correct, a time may come when population growth would no longer a threat to Australia's biodiversity, because Australians would be existing with an ecological footprint so low as to present no danger to our environment. But that time has not arrived, and is far from our current trajectory. [We] must take things as they are, not as we all hope they will be. For now, the process of human population growth – in the context in which it has occurred in the recent past, and the context in which it will almost certainly occur in the near future – compounds many threats to Australia's biodiversity.<sup>34</sup>

Current Commonwealth policy settings, which combine one of the highest (1.6% per annum) population growth rates in the OECD, with savage cuts to national efforts to monitor, enforce and manage environmental and biodiversity legislation, can only yield the inevitable dismal results. On both counts, these policy settings need to be reversed. Australia's human population growth needs to be reduced and our population level stabilised, while resources for environmental monitoring and management need to be dramatically increased.

Australia lacks a population policy: our population growth rate is largely controlled by the federal government through immigration quotas and incentives for Australian residents to have babies. As the Productivity Commission has stressed, "Australia's immigration policy is its de facto population policy. Decisions about immigration policy should be made within a broad context and explicitly take into account the associated economic, social and environmental impacts."<sup>35</sup>

There are instances where immigration is appropriate and beneficial, and it is possible to have a stable population while accommodating considerable migration. Tens of thousands of people emigrate from Australia each year, which means that tens of thousands can immigrate while still maintaining zero net migration.

Ending population growth does not mean a one-child policy or 'slamming the door' on all immigration, as some people imply. The lower our fertility, the higher net immigration we can have, while maintaining a stable population. At current fertility around 1.8, sustainable

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<sup>34</sup> Australian Conservation Foundation, 'Key Threatening Process Nomination: Human population growth in Australia,' 22 March 2010. [http://population.org.au/articles/2018-07-29/growth-squeezes-species\\_pp\\_8\\_9](http://population.org.au/articles/2018-07-29/growth-squeezes-species_pp_8_9).

<sup>35</sup> Productivity Commission, (2016) Migrant Intake Into Australia. Inquiry Report No. 77, 13 April 2016.

immigration would only be around 0.15% of our population annually, but probably around twice that figure in gross immigration.

Our current fertility rate is relatively high for a developed country, partly as a result of pro-natalist policies intended to boost population growth (the baby bonus and accompanying rhetoric was followed by a 20% rise in the number of births per year). Recent high levels of immigration from high-fertility ethnic groups may also contribute.

There is every reason to believe that fertility would fall if pro-natalist messaging ended and immigration were lower. If Australia's fertility rate fell to 1.5 children per woman (which is about two children for every couple who want children, and about Europe's average), we could then have sustainable net immigration of around 0.3% of our population annually. This would maintain around the current proportion of people born overseas (about 27%), which is among the highest in the world.

Thus it is possible to

- (i) be open to immigrants,
- (ii) have a multi-ethnic society,
- (iii) accommodate a generous refugee and humanitarian program, and
- (iv) maintain a stable population within sustainable environmental limits.

To stabilise Australia's population in the very near future to the extent required to halt our shameful faunal extinction crisis, we need to both reduce the numbers of new immigrants and stop pro-natalist policies. Both are easily achieved by the federal government, with minimal impact on any group within the community. Both would also have vast benefits for government budgets, saving tens of billions of dollars in infrastructure annually,<sup>36</sup> and for the wellbeing of Australians be they humans, birds or animals.

## **RECOMMENDATIONS**

1. When the authors of the State of the Environment Report are unable to determine impacts it is clear that funds are sadly lacking. SPA recommends a significant increase funding for environmental research, including into the following:
  - (a) systematic, ongoing and publicly accessible studies, at a national level, and using earth observation satellite datasets, into the historic and ongoing extent of habitat loss relating to threatened species and the causes of such loss, including the contribution of human population growth; and
  - (b) the sensitivity of endangered species to specific factors, including human activities and their infrastructure, their projected trends, and the measures available to mitigate them.
2. That the Committee report should highlight the relevance of Australia's rapid population growth as a key threatening process affecting the deteriorating situation for threatened species, and the need for Australia to adopt a population policy consistent with long term environmental sustainability.

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<sup>36</sup> O'Sullivan JN (2012) The burden of durable asset acquisition in growing populations. *Economic Affairs* 32(1): 31–37.

3. As noted above, SPA also supports: major increases in funding for expansion of reserve systems and recovery plans; for legislative reform as proposed by ACF; and for a new national critical habitat register.

Yours sincerely

A handwritten signature in black ink that reads "Sandra M Kanck". The signature is written in a cursive, flowing style.

Hon Sandra Kanck  
National President  
Sustainable Population Australia  
Ph. 0417882143