

28 April 2020

Royal Commission into National Natural Disaster Arrangements
Manuka ACT 2603
Submitted via email: rcnda.submissions@royalcommission.gov.au



BirdLife Australia submission to the Royal Commission into National Natural Disaster Arrangements (the Royal Commission)

Thank you for the opportunity to provide a submission to the Royal Commission.

BirdLife Australia recognises the unprecedented nature of the 2019/2020 bushfires and their likely long-lasting impact on communities and nature alike. Our preliminary analysis of the impacts of the fires on Australia's birdlife indicates that 45 bird taxa have had more than 30 per cent of their habitat negatively impacted by fire. Species formerly thought to be secure and not of conservation concern, such as the Superb Lyrebird and Gang-gang Cockatoo, now require urgent and ongoing conservation action to facilitate their recovery.

To conserve and protect our unique biodiversity, it is imperative that Australia takes an evidence-based approach to preparing for and responding to natural disasters. Bushfire risk management strategies must prioritise the protection of human life and property whilst minimising detrimental impacts on biodiversity.

In this submission we put forward five key areas for national reform to improve coordinated efforts to prepare for and respond to bushfires and other natural disasters in Australia.

1. Introduction of national standards for strategic bushfire management plans, which use a risk-based approach to protecting life and property, and the environment.
2. A national rapid response plan for biodiversity emergencies to facilitate collaborative and cost-effective responses to future natural disasters.
3. Increasing the national fleet of firefighting aircraft.
4. Adequate funding and better institutional arrangements for projects supporting ecosystem recovery and resilience, including rapid response.
5. Immediate actions to reduce greenhouse gas emissions and the correlated increase in the incidence and severity of natural disasters.

Should you require further information on this submission, please contact our Bushfire Response Coordinator, Dr Pamela Fallow [REDACTED]

Sincerely

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About BirdLife Australia

BirdLife Australia is an independent non-partisan grassroots charity with over 175,000 supporters throughout Australia. Our primary objective is to conserve and protect Australia's native birds and their habitat. Our organisation is the national partner of BirdLife International, the world's largest conservation partnership. We are recognised as a leading authority on the ecology and conservation of Australia's native birds.

BirdLife Australia has played a major role in the conservation and monitoring of Australia's birdlife throughout our almost 120-year history. We have invested in long-term threatened bird conservation programs, often in partnership with other organisations and communities, bringing together research, education, on-ground remediation, advocacy and campaigning. The organisation relies on thousands of volunteers and citizen scientists who play a key role in delivering our bird conservation programs.

Impacts of fire on birds and biodiversity

Inappropriate fire regimes (including planned and unplanned fires) and catastrophic wildfires are the major threat to the survival of many birds and other species. Whilst spatial and temporal burn mosaics benefit certain species, indiscriminate planned burns, and wildfires of the extent and intensity of the 2019/2020 bushfire season create long-lasting damage to native species and ecological communities.

Since European settlement, inappropriate fire regimes have contributed to the extinction of at least five Australian birds and currently threaten 50 other bird taxa including the Western Ground Parrot, Noisy Scrub-bird, Gouldian Finch, Malleefowl and Golden-shouldered Parrot. Species differ in their response to fire and to post-fire successional changes in vegetation due to varying life-history characteristics and habitat needs. Inappropriate fire management is harmful because it reduces habitat extent and heterogeneity, including both floristic and structural heterogeneity.

Analysis by the Australian Government *Wildlife and Threatened Species Bushfire Recovery Expert Panel* (Expert Panel) identified severe impacts from the 2019/2020 bushfire on birds, numerous other animals, plants and ecological communities¹. The Expert Panel advised that the recent bushfires had pushed threatened species closer to extinction while imperilling species previously thought to be secure. Seventeen bird taxa are included on the priority list and the Expert Panel found that urgent actions are necessary to maximise the chances of their long-term recovery.

¹ Report prepared for the Wildlife and Threatened Species Bushfire Recovery Expert Panel
14 March 2020: <http://www.environment.gov.au/biodiversity/bushfire-recovery/priority-animals>



Fire as a Key Threatening Process to species and ecosystems

Inappropriate fire regimes associated with planned and unplanned fires are recognised as key threatening processes (KTP) in two of the states most impacted by the 2019/2020 bushfires:

Victoria's *Flora and Fauna Guarantee Act 1988* recognises the following potentially threatening processes:

- High frequency fire resulting in disruption of life cycle processes in plants and animals and loss of vegetation structure and composition.
- Inappropriate fire regimes causing disruption to sustainable ecosystem processes and resultant loss of biodiversity.

Similarly, NSW's *Threatened Species Conservation Act 1995* recognises the following KTP:

- High frequency fire resulting in the disruption of life cycle processes in plants and animals and loss of vegetation structure and composition.

In 2008, *Fire regimes that cause biodiversity decline* was nominated for assessment as a Key Threatening Process under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* and placed on the finalised priority assessment list with a decision due on 31/08/2013². To our knowledge, this assessment has never been completed. It is imperative that this assessment is immediately undertaken to inform a strategic national approach to dealing with the threat of inappropriate fire regimes to biodiversity.

The complexity of fire management and its impacts on the ecology and conservation of species and ecosystems are discussed in more detail in submissions to the Royal Commission made by the Ecological Society of Australia and Professor Michael Clarke from La Trobe University. BirdLife Australia acknowledges and supports these submissions, in particular the comments relating to 1. the danger of adopting a one-size-fits-all, hectare target-driven approach to fire management; and 2. the limited value of planned burning in reducing bushfire risk to life and property, and to the environment.

² <https://www.environment.gov.au/sprat-public/action/fpal-submit;jsessionid=69676F46C27986D11B688C479569975B>



Response to the Royal Commission Terms of Reference

The following list summarises what BirdLife Australia believes are key areas for national reform to improve coordinated efforts to prepare for and respond to bushfires and other natural disasters in Australia. The items in this list are discussed in further detail below.

1. Introduction of national standards for strategic bushfire management plans, which use a risk-based approach to protecting life and property, and the environment
2. A national rapid response plan for biodiversity emergencies to facilitate collaborative and cost-effective responses to future natural disasters
3. Increasing the national fleet of firefighting aircraft
4. Adequate funding and better institutional arrangements for projects supporting ecosystem recovery and resilience, including rapid response.
5. Immediate actions to reduce greenhouse gas emissions and the correlated increase in the incidence and severity of natural disasters

1. Introduction of national standards for strategic bushfire management plans, which use a risk-based approach to protecting life and property, and the environment

The introduction of national standards for bushfire management plans could increase the effectiveness of bushfire management approaches for reducing risks to humans and biodiversity. National standards could require fire management plans to address how habitat for birds and other wildlife will be managed, particularly species of conservation significance, and provide adequate and ongoing resources for the monitoring and evaluation of impacts of fire and fire management on threatened species and their habitats.

National standards must incorporate recommendations from the Victorian Inspector-General for Emergency Management's 2015 *Review of Performance Targets for Bushfire Fuel Management on Public Land*³. A key finding from this review was that, "A hectare-based planned burning performance target does not effectively guide a fuel reduction program towards areas of highest risk reduction over the longer term". The report recommended the adoption of risk-based approaches to planned burning for fuel reduction, which use risk reduction performance targets rather than hectare-based performance targets. Despite these findings, the use of hectare-based targets for fuel reduction persists in some jurisdictions. In an effort to meet these arbitrary targets, large-scale burns may be conducted in areas of remote bushland instead of strategic sites close to residential areas and other important infrastructure which require protection.

³ <https://www.igem.vic.gov.au/reports-and-publications/igem-reports/review-of-performance-targets-for-bushfire-fuel-management-on>



BirdLife Australia recognises that planned burns for fuel reduction can be an important tool in bushfire management. However, planned burning is effective only when conducted strategically to reduce fire risk to nearby assets. Meanwhile, indiscriminate burns have limited value for protecting human assets and may cause long-term damage to habitat for wildlife.

BirdLife Australia supports planned burns for fuel reduction, only if they are:

- risk-based and area-specific, rather than burns to meet hectare-based targets;
- one of many tools used in an integrated management plan with clear objectives and procedures for measuring success against these objectives; and
- part of an adaptive-management approach which ensures the results of monitoring the effectiveness of fire management in asset protection and achieving ecological objectives are continuously incorporated into the process for planning future burns.

Further, fire management plans must recognise that fuel reduction burning has limited effectiveness, particularly on days of extreme or catastrophic (code red) fire danger. Additionally, while it can reduce the immediate risk of wildfire, fuel reduction burning can also increase fire risk by encouraging the growth of flammable understory.

Therefore fuel reduction burning cannot be the only method for managing fire risk and must be used in combination with other methods for reducing the risk of wildfire, such as grazing, mowing and slashing. Fire risk can also be reduced by burying power lines and controlling arson to reduce the likelihood of ignition. These alternative approaches will be increasingly important as the length of the bushfire season increases, thus reducing opportunities to safely conduct planned burns.

2. A national rapid response plan for biodiversity emergencies to facilitate collaborative and cost-effective responses to future natural disasters

The Australian Government could develop a national rapid response plan for biodiversity emergencies, which facilitates and mobilises collaborative action with relevant key stakeholders. This would allow the Australian Government to rapidly and appropriately respond to the next catastrophic bushfire and other biodiversity emergencies through a nationally coordinated approach to supporting government and non-government organisations (NGOs) in immediate and medium-term recovery actions for species and ecosystems. This function could sit within the National Environmental Science Program or become an ongoing role for the Australian Government Wildlife and Threatened Species Bushfire Recovery Expert Panel (the Expert Panel).

BirdLife Australia believes the rapid establishment of the Expert Panel to advise the Threatened Species Commissioner (TSC) and in turn, the Federal Minister for the



Environment, was an appropriate and timely response to the bushfire crisis. Importantly, the Expert Panel members are scientists drawn from a range of biodiversity disciplines, ensuring that decisions and priorities for bushfire recovery species and ecosystems are based on the best available information. Likewise, the Australian Government's initial commitment of \$50 million to protect wildlife, and to start the work of scientists, ecologists, communities and land managers in planning the longer-term protection and restoration effort was welcome. Given the scale of the bushfires, rapid allocation of funding was critical in preventing further environmental damage and to support the impact assessments that will provide a foundation for immediate and longer-term recovery planning.

A rapid response plan for biodiversity emergencies would have allowed the Australian Government to mobilise key response organisations quickly and prioritise the distribution of the \$50 million of funding for wildlife and habitat recovery more strategically and cost effectively. This approach could have provided a science-based and transparent rationale to prioritise immediate and longer-term action for threatened species and habitat (where the Commonwealth has a legislated role) over short-term interventions focussed on the rescue and rehabilitation of individual animals. It is understandable that Australians were shocked and saddened by images of injured animals, however the magnitude of the contribution must be commensurate with the scale of the problem and its likely long-term value. Further, many wildlife rescue organisations had already raised a considerable amount of funds. A rapid response plan would also provide a more transparent framework and process to assess and fund emergency interventions. Some NGOs received significant initial funding (up to \$7.5 million) with no clear rationale to underpin those decisions.

In response to the 2019/2020 bushfires, BirdLife Australia began undertaking rigorous mapping and analysis of the impacts of fire on Australia's birds and their habitat. Our analyses have been provided to the Expert Panel and are being used to support their decisions and advice to the TSC and Minister. BirdLife believes this was an opportunity to mobilise significant resources quickly and strategically for threatened species recovery using a powerful combination of government and philanthropic funding.

BirdLife Australia has so far relied on the generosity of its donors to coordinate and mobilise rapid assessments and recovery actions. In this period of a global pandemic and associated economic downturn, BirdLife looks forward to working with the Australian Government and our partners to implement further bushfire recovery actions.

An example of a prompt and timely response to the 2019/2020 bushfires' impacts on wildlife and biodiversity was the Victorian Government's Bushfire Biodiversity Response and Recovery (BBRR) program and the associated funding package for immediate actions⁴. Managed by the Victorian Department of Environment, Land, Water and Planning (DELWP), this program quickly identified priorities for the recovery of threatened species and their

⁴ <https://www.wildlife.vic.gov.au/home/biodiversity-bushfire-response-and-recovery>.



habitats, including immediate actions and activities to take place over several years. It recognised the importance of both a rapid response and ongoing work to increase the long-term resilience of threatened species and their habitats.

The BBRR program was informed by a report developed in consultation with experts in threatened species and land management, with the intention that the report will be updated as new information becomes available. The report identifies 'species of particular concern' and this will assist the prioritisation of actions for the recovery effort. The \$17.5 million allocated to Phase 1 of the program (Immediate Actions) recognises the considerable impacts of the bushfires to wildlife and will hopefully prompt further funding.

Importantly, DELWP's planning included engagement with a broad range of external stakeholders, including BirdLife Australia, allowing timely information sharing and planning of recovery actions. External stakeholder engagement is vital in reducing duplication of effort (e.g. mapping of bushfire impacts), an important consideration when working in an area with limited resources.

3. Increasing the national fleet of firefighting aircraft

The Australian Government could support bushfire response by investing in a fleet of large firefighting aircraft. Aircraft facilitate rapid response capability and can bring fires under control before they become unmanageable. Effective ignition control will involve not just an increased number and range of aircraft, but also a funded strategy to deploy them in remote areas. This will be expensive, but stopping just one or two fires at the point of ignition can potentially save many lives, protect whole communities, and save billions of dollars (Black Saturday cost Victoria over \$4 billion, and last summer's fires cost considerably more).

Firefighting aircraft that can quickly deliver large volumes of water will become increasingly valuable as larger and more intense fires become more common.

The shortage of firefighting aircraft in Australia means Australia must lease aircraft from countries in the northern hemisphere. The lack of aircraft on hand creates delays in responding to bushfires and limits the ability to suppress fires in remote areas that are inaccessible to ground crews. Additionally, borrowing aircraft is becoming increasingly impractical as southern and northern hemisphere fire seasons extend and begin to overlap.



4. Adequate funding and better institutional arrangements for projects supporting ecosystem recovery and resilience, including rapid response

The Australian Government must commit a considerably greater amount of funding to the management of threatened species and habitats if it genuinely seeks to protect these from repeated bushfires. This would be consistent with Australia's international obligations under the United Nations Convention on Biological Diversity.

Although the 2019/2020 bushfire season was unprecedented in its length and the intensity of fires, long and intense bushfire seasons are predicted to become increasingly common (Pitman et al. 2007)⁵. The lack of adequate funding for threatened species recovery forces government agencies, conservation organisations and communities to focus on the recovery of only a proportion of threatened species. If the current trends in funding continue, it is unlikely that ecosystems impacted by the latest bushfire season will recover before they are impacted by further bushfires.

5. Immediate actions to reduce greenhouse gas emissions and the correlated incidence and severity of natural disasters

BirdLife Australia recognises the link between the human-induced accelerated rate of climate change and the increasing incidence and severity of natural disasters such as bushfires. The effects of climate change on weather conditions, including higher temperatures and lower precipitation, undermine efforts for bushfire preparation, mitigation, response and recovery and may eventually render these practices ineffective.

A national approach is required to immediately reduce greenhouse gas emissions and slow the rate of climate change. BirdLife Australia calls for the protection of natural carbon stores, and supports large scale habitat restoration and revegetation programs to achieve dual biodiversity and greenhouse gas abatement/carbon sequestration outcomes. Such programs must not harm biodiversity and should maximise biodiversity outcomes in order to deliver ecosystem resilience.

⁵ Pitman AJ, Narisma GT & J McAneney J (2007) The impact of climate change on the risk of forest and grassland fires in Australia. *Climatic Change*, 84, 383–401.
<https://doi.org/10.1007/s10584-007-9243-6>