

Shared responsibilities and collaborative responses: review of actions taken to support the recovery of biodiversity after the 2019–20 wildfires

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The preceding chapters (22–27) of this section described the responses made to help recover fire-affected biodiversity. An extraordinary cast of government agencies, conservation non-government organisations (NGOs), landholder groups, Indigenous groups, local councils and communities, businesses, philanthropical organisations and individuals made important and distinctive contributions to this recovery effort. Our accounts cannot hope to recognise, report on and pay tribute to all of those contributors: for example, WWF-Australia in Chapter 24 noted partnerships with more than 200 groups to implement the post-fire recovery efforts in which they were involved, and the Australian Government funded at least 240 groups to implement recovery actions. Although government agencies have primary responsibility for biodiversity management in Australia, the many groups and individuals involved in the post-fire recovery effort demonstrate the willingness of the community as a whole to share responsibilities for, or contribute to, the care of the environment, and especially so in the face of emergencies.

The collaborative effort involved a large variety of actions at local, regional, state and national level. Such an exemplary response was commensurate with the myriad impacts on biodiversity of the 2019–20 wildfires over vast areas and on many land tenures. These actions undoubtedly did much to help protect populations of many species whose existence was made tenuous because of losses in the fires. It is likely that the precarious and long pathway to recovery of many fire-affected species and ecological communities is more secure and advanced because of this response.

Several characteristics of the recovery effort are highlighted in these preceding chapters:

- Responses were initiated with extraordinary rapidity. While fires were burning, state and national governments, in collaboration with many experts and organisations, quickly identified species that were most likely affected, and contributed significant financial resources to emergency recovery actions. There were several factors that enabled such swift response, including access to biodiversity datasets and tools, the technical capacity and capability to guide and support on-ground action, and collaborative efforts between agencies, NGOs, research institutions, Traditional Owner groups and the community. For the showcased examples of Wollemi pine (*Wollemia nobilis*) and eastern bristlebird (*Dasyornis brachypterus*) (Chapters 27 and 15), existing plans

facilitated heroic action during the fires when important populations were threatened. This rapid response extended to urgent post-fire action, such as for the Kangaroo Island dunnart (*Sminthopsis griseoventer aitkeni*) (Chapter 24); surveys immediately post-fire located surviving populations, and then a collaborative effort resulted in rapid establishment of a 369 ha feral predator exclusion area on Kangaroo Island, and targeted control of feral cats.

Of course, some chapters also recognised impediments to rapid action, including suboptimal biodiversity data, safety concerns for personnel in active fire zones and in recently burnt areas, the unpredicted constraints due to COVID-19, administrative requirements (i.e. having relevant plans or permits, such as for wildlife handling), availability of suitable expertise and facilities (notably for *ex situ* actions and animal shelters, some of which were swamped by the unprecedented demands) and access to some funding sources.

- Post-fire responses were generally strategic, prioritised and evidence-based. Given the potentially bewildering array of impacts of these wildfires on so many species and environments over such a large area, there was a critical need to identify and justify priorities among the fire-affected components of biodiversity and to implement priority actions for these. Such prioritisation was undertaken and reported at national and state levels, based particularly on rapid spatial assessments of fire overlap with the distributions of species and ecological communities and on advice provided rapidly by experts on those management actions most likely contribute to recovery. These conservation responses included the control of compounding threats, *ex situ* actions, and the identification and subsequent protection of important sites and populations. In many cases, rapidly implemented post-fire surveys helped to further corroborate or extend the initial assessments of impacts, and to hone management responses.

Again, there were some impediments in this prioritisation of fire-affected biodiversity and responses: the assessments of priority species were constrained by data limitations (with one consequent bias that well-known vertebrate species received disproportionate recovery efforts) and there were uncertainties in the likely effectiveness of some management responses. To some extent, post-fire monitoring of recovery, threats and management effectiveness will fill such knowledge gaps, allowing for more confidence in responses to comparable situations in the future.

- Responses were developed and undertaken collaboratively by many stakeholders. A hallmark of the recovery effort, highlighted in most of the preceding chapters, was that the response was cooperative – to an extent that is unprecedented in conservation management in Australia – and scaled fittingly across local, regional and national levels. Inclusive workshops that focused on biodiversity values, Indigenous knowledge and values, fire impacts and management responses did much to cement this collaboration, allowing for the integration of local capability, knowledge and values with national priorities. Diverse groups displayed a much-needed willingness to work together, each contributing specific skill sets and capabilities, in recognition of the global significance of the loss and the imperative for recovery: such collaboration also helps to heal social scars imposed by the fires. The need and value of coinciding the recovery of social and environmental values is perhaps best epitomised in the Victorian nature-led community recovery program (Chapter 30).
- Financial and other resources were mobilised quickly to allow the implementation of priority recovery efforts. As described in Chapter 22, the Australian Government rapidly contributed \$200 million to the recovery of biodiversity affected by the 2019–20

wildfires, and many state and territory governments provided commensurate funding. The active involvement of relevant government ministers in the fire response may have helped to ensure such ready availability of funding.

Exceptional financial contributions were also made by many organisations and individuals, including donations from across the globe. For example, the animal welfare group NSW Wildlife Information, Rescue and Education Services Inc. (WIRES) received \$91 million in bushfire donations over a period of a few months (Australian Charities and Not-for-Profits Commission 2020). Many organisations and agencies had to be, and were, extraordinarily agile in responding to the fire emergency, diverting resources from other pre-existing actions and commitments and rapidly expanding their capability and expertise to address the many challenges imposed by the urgent need for response. However, this exceptional funding and need for urgent action also challenged the administrative capacity, governance and expertise of some groups.

Another concern is that most recovery funding has been invested in urgent and short-term management response, and there is likely to be far less funding available to maintain support for the long-term needs of recovery. Apparent short-term successes may be eroded without ongoing management support and without significant investment in planning and preparation for future events.

- There is a need to review, and take actions to improve, the responsiveness for future comparable events. The chapters contributed by agencies and conservation groups highlighted examples of success, but there are likely to be other cases that were less successful. These shortcomings are in part understandable given that management systems and policy settings had not previously been subject to stresses of the level experienced in the 2019–20 wildfires and the need for such wide-ranging recovery efforts. However, the fires also exposed the entirely predictable limitations of our data and knowledge, with a consequence that many highly vulnerable species and communities may have missed out on necessary emergency action – and especially so for poorly known groups and those with little public profile, such as fungi and invertebrates. These chapters included recommendations that mostly seek to address such shortcomings.

Most of the content of the preceding chapters describes the implementation of management actions. To date, understandably, there is less information on the outcomes of those actions – it is important that ongoing monitoring can assess whether these actions have led, or are leading to, the successful recovery of fire-affected species and communities.

The emphasis on management actions in these chapters also overshadows some other types of actions that will be needed for long-term improvements – such as responses in planning, policy and legislation. We visit some of these issues in the following section (Chapters 29–35).

Reference

Australian Charities and Not-for-Profits Commission (2020) *Bushfire Response 2019–20: Reviews of Three Australian Charities* Australian Charities and Not-for-Profits Commission, Canberra.