Abstract - Dickman

Bad things happen: Impacts of wildfires on wildlife

Fire has long been a part of the Australian environment and remains a potent force in shaping the adaptations of species, the dynamics of populations, and the structure of ecological communities. However, climate change is upon us. Fire seasons are longer, wet vegetation types that do not usually burn are now at risk, and fire intensity and severity are currently greater than in the recent past. A particularly widespread event occurred in the forest and woodland regions of Australia over the summer of 2019–2020. Termed the 'Black Summer' bushfires, remotely sensed data indicate that 11.5 million hectares of forest were burned, as well as more than six million hectares of grassland and savanna.

The unprecedented geographical scale of the Black Summer fires, as well as the severity and speed of fire spread, led to widespread concern about the ecological damage that was caused. Estimates suggest that almost three billion vertebrates were affected by the fires, with some animals killed directly by fire but many more dying later due to resource shortages, starvation and predation. Fires were experienced in part of the geographical ranges of 832 vertebrate species and 37 threatened ecological communities, with some entities feared to be at risk of extinction. Huge numbers of injured and displaced animals were brought into care, overwhelming capacity and leading to burn-out and stress among carers.

Field assessments of ecological recovery have been slowed by COVID-19 restrictions, and also by a diminution in ecological monitoring that occurred before the last fire season. Still, the bush is now regenerating and populations of many species are showing strong signs of recovery. In this talk, I propose a series of steps, including establishment of a Biodiversity Bureau, to help achieve ecological recovery and mitigate the effects of future mega-fires for both people and wildlife.

Revision #2
Created 2025-02-11 04:40:05 UTC by Admin
Updated 2025-02-13 23:36:00 UTC by Admin