More than one billion animals killed in Australian bushfires

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8 January 2020

Update on number of animals killed in Australian bushfires: Sydney expert

Professor Chris Dickman has revised his estimate of the number of animals killed in bushfires in NSW to more than 800 million animals, with a national impact of more than one billion animals.

Several weeks ago Professor Dickman, from the University of Sydney's Faculty of Science estimated that 480 million animals would be killed by the fires. With the fires having now continued and extended their range he has updated that figure including putting the impact nationally at more than one billion animals.

Speaking to National Public Radio in America Professor Dickman said, "I think there's nothing quite to compare with the devastation that's going on over such a large area so quickly. It's a monstrous event in terms of geography and the number of individual animals affected."

"We know that Australian biodiversity has been going down over the last several decades, and it's probably fairly well known that Australia's got the world's highest rate of extinction for mammals. It's events like this that may well hasten the extinction process for a range of other species. So, it's a very sad time.



Fires hit a kangaroo sanctuary on the NSW Mid South Coast. Source: ABC News.

"What we're seeing are the effects of climate change. Sometimes, it's said that Australia is the canary in the coal mine with the effects of climate change being seen here most severely and earliest... We're

probably looking at what climate change may look like for other parts of the world in the first stages in Australia at the moment," said Professor Dickman from the <u>Faculty of Science</u>.

"I think there is a feeling among environmental scientists and ecologists in Australia that we've been frozen out of the debate, certainly out of policymaking. I think it's now time to bring the scientists back into the tent to look at what is likely to be happening over the next few decades and to think about how we can maintain both the human community in good health and as much biodiversity as can be retained under this evolving situation."

<u>Professor Dickman</u> explains that animals that survive the fires in the first instance by fleeing or going underground will return or re-emerge into areas that don't have the resources to support them. Others will fall victim to introduced predators such as feral cats and red foxes. Even for those birds or animals able to flee to unaffected areas they will rarely be able to successfully compete with animals already living there and succumb within a short time.

How the figures were calculated

The figures quoted by Professor Dickman are based on a 2007 report for the World Wide Fund for Nature (WWF) on the impacts of land clearing on Australian wildlife in New South Wales.

To calculate the impacts of land clearing on the State's wildlife, the authors of that report obtained estimates of mammal, bird and reptile population density in NSW and then multiplied the density estimates by the areas of vegetation approved to be cleared.

Estimates of density were obtained from published studies of these animal groups in NSW and from studies carried out in other parts of Australia in similar habitats to those present in NSW.

The authors deliberately employed highly conservative estimates in making their calculations. The true mortality is therefore likely to be substantially higher than those estimated.

The figure includes mammals (excluding bats), birds and reptiles and does not include frogs, insects or other invertebrates. NSW's wildlife is seriously threatened and under increasing pressure from a range of threats, including land clearing, exotic pests and climate change.

Australia supports a rich and impressive diversity of mammals, with over 300 native species.

Some 34 species and subspecies of native mammals have become extinct in Australia over the last 200 years, the highest rate of loss for any region in the world.

Professor Dickman's experience

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Professor Chris Dickman works in the <u>School of Life and Environmental Sciences</u> and has over 30 years of experience working on the ecology, conservation and management of Australian mammals.

Professor Dickman is a past President of the Australian Mammal Society and of the Royal Zoological Society of NSW, past Chair of the NSW Scientific Committee, and Chair of the Australian Marsupial and Monotreme Specialist Group for the Species Survival Commission of the International Union for Conservation of Nature. He is a Fellow of the Australian Academy of Science.

He has written or edited 16 books and monographs and authored a further 480 journals articles and book chapters.