

# Summary

The Australian mammal fauna is extraordinary. It includes much of the World's complement of mammals in the most ancient lineages. It includes some spectacular species, such as the Platypus, Tasmanian Devil, Koala, Red Kangaroo, Dugong and Blue Whale; but also very many other species that are small, nocturnal, cryptic, rarely-seen or largely unknown. Amongst the terrestrial mammal fauna, there is an extremely high rate of endemism (nearly 90%). This gives the fauna a special value and our society a special responsibility to sustain this natural asset: for most species, their continuing existence now depends upon how we manage them and their environment.

The Australian mammal fauna has fared catastrophically since European settlement. Previously common and widespread species have been forced to extinction; many surviving species now eke out an existence in a tiny fraction of their former range or are sustained in a type of emergency care under the life support system offered by island marooning, captive breeding or predator-proof fencing.

In this book, we provide a comprehensive review of the current conservation status of all Australian mammal species and subspecies. It has been a sobering task. We chronicle much that is now irretrievably lost, and much that, without urgent action, may now be doomed. But it is also an opportunity for realistic hope, and to help chart a direction for prioritising conservation activity in Australia that appropriately recognises our magnificent natural heritage and our obligation and capability to cherish and maintain that heritage. For perhaps all threatened mammal species, the capability and knowledge exists to identify and manage those threats that are jeopardising existence. But this is not always an easy or cheap task; mostly it requires a clear vision, long-term security of resourcing, the commitment of individual experts and of communities, and management accountability.

This book is modelled on *The Action Plan for Australian Birds 2010* (Garnett *et al.* 2011), the third in a decadal-interval series of accounts of the conservation status of Australian birds. As with the regular bird accounts, we would hope that this account is updated in 10 years' time, and thereafter.

This book is timely, because many Australian mammal species are now in that 'thin zone from the critically endangered to the living dead and thence into oblivion' (Wilson 2002). Indeed, at least one and possibly two Australian endemic mammal species have become extinct in the last 10 years. With dispassion, we can say that the

need for conservation action is urgent. Here, we provide a context for the most strategic and effective program of such action.

In this book, we have assessed (using the now standard international criteria for evaluation) the conservation status of 315 terrestrial and 60 marine species, and a further 125 non-redundant<sup>1</sup> terrestrial subspecies and 6 marine subspecies occurring (or formerly occurring) in Australia, including its marine and coastal environments and external territories. We provide detailed accounts for most terrestrial mammal and marine mammal taxa, omitting accounts only for vagrants, taxa not generally recognised as valid, or taxa whose conservation status is clearly of Least Concern. For every considered taxon, these accounts review the relevant conservation parameters (mostly relating to population size and its trends, and to distributional extent and its trends), seek to identify the threats with most impact, prioritise research and management responses, document ecological and other information relevant to conservation management, and compare the currently-accorded 'official' conservation status with the status that is most appropriate given current information on relevant parameters. In almost all cases, draft accounts were circulated widely to relevant experts, and modified appropriately in response to relevant (and typically very substantial) contributions from those reviewers. More than 200 such experts contributed to this work.

We conclude that 29 Australian mammal species have been made extinct since European settlement of this continent a little over 200 years ago. This represents more than 10% of the then Australian endemic mammal fauna. This tally is higher than previous estimates. Extinctions have occurred at a more or less consistent rate since the 1840s, the probable date of the first post-1788 extinction. Much of the cause of these extinctions, and of the decline of many other Australian mammals, is now deep-rooted and may take many decades or generations to repair. No other country has a record of mammal extinctions in modern times that is anywhere near as bad as that of Australia.

We also conclude that a further 56 terrestrial mammal species (18% of the Australian mammal species) and 33 terrestrial subspecies are threatened with extinction: this includes 11 species and one subspecies that are Critically Endangered. A further 52 terrestrial species and 19 terrestrial subspecies are rated here as Near Threatened:

<sup>1</sup> Where 'redundant' refers here to there previously or currently being only a single subspecies in Australia, Australian waters and external territories