

2. A list of native Australian mammal species and subspecies

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INTRODUCTION

After more than 200 years of study, the taxonomy of Australian mammals remains far from firmly resolved. New species continue to be described; long-established names have been overhauled; and the robustness and comprehensiveness of taxonomic treatment varies appreciably between different groups. Even some previously stable taxa are being revised and seen in a new light as a result of recent advances in genetic techniques.

The most recent authoritative and comprehensive review of the taxonomy of Australian mammals was in 1988 (Walton 1988), and much has changed subsequently. To some extent the Australian Faunal Directory (Australian Biological Resources Study (ABRS) (2012) maintains a watching brief on such changes and attempts to maintain a regularly updated listing of valid taxa. The Mammal's Planet on-line taxonomic database (<http://www.planet-mammiferes.org/>) and the Mammal Species of the World (Wilson and Reeder 2005) provide a useful complement, and global context, to Australian mammal taxonomy, though the internet version of the latter (<http://www.vertebrates.si.edu/msw/mswcfapp/msw/index.cfm>) does not appear to be updated regularly.

For our purpose, we established a list of Australian mammal species and subspecies, based initially from that used by the ABRS. We have made some modifications to that list based on new information, commentary from relevant taxonomists, and with reference to a currently unpublished review of the taxonomy of Australian mammals (Jackson and Groves *in press*). For marine mammals we used the currently (as at December 2012) accepted species and subspecies taxonomy of the Society for Marine Mammalogy, available at www.marinemammalscience.org.

The unsettled nature of Australian mammal taxonomy is evident when comparing the naming date of currently-recognised Australian endemic mammal species

and currently-recognised Australian endemic bird species (Fig. 2.1). Whereas most Australian bird species were described by 1850 (and very few have been described over the last 100 years), there has been an almost continuous rate of descriptions for Australian endemic mammal species, extending unbroken to the present day.

It is a matter of concern that there is currently limited taxonomic research into Australia's mammals. Few of the nation's major museums currently employ mammal curators and some taxonomic genetics research, often conducted within universities, has not been followed up with formal taxonomic descriptions. The still far from complete mammal taxonomy in Australia reinforces the necessity and importance of collecting voucher specimens of mammals and for museums to retain vouchers (Burbidge *et al.* 2012). Research (and consequently conservation management) is continually being hampered, not only by there being few taxonomists, but also by a lack of museum specimens.

Our objective is to assess the conservation status of all Australian native mammal species and subspecies, following the precedent set in the Action Plan for Australian Birds (Garnett *et al.* 2011), and consistent with the Australian national environmental legislation, the *Environment Protection and Biodiversity Conservation Act 1999*, which allows for the listing, as threatened, of recognised species and subspecies (and in exceptional cases, populations). Consideration of the conservation status of individual subspecies helps maintain the conservation of genetic diversity (as promoted by the Convention on Biological Diversity of which Australia is a signatory), and serves as a conservative buffer for taxonomic uncertainty, especially for cases where future taxonomic inquiry may demonstrate that currently-recognised subspecies should be elevated to specific rank (e.g. Braby *et al.* 2012). However, subspecific treatment of Australian mammals has been erratic: many currently recognised subspecies