

# Preface

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Australia boasts a rich faunal assemblage, with high levels of endemism resulting from the continent's separation from Gondwana around 40 million years ago. Understanding this unique fauna, and finding ways to manage, use and conserve it, are central to most Australian wildlife research. Research and teaching related activities that involve or 'use' wildlife in Australia, are regulated and guided by national, state- and territory-based legislation, guidelines and codes, with researchers required (with few exceptions) to obtain approval from an animal ethics committee (AEC) before they commence. This process is intended to ensure that welfare outcomes for study animals, including wildlife, are in line with requirements under The Australian Code for the Care and Use of Animals for Scientific Purposes ('the Code') (see Chapter 1). This oversight is important given the number of animals used in research in Australia annually (over 6 million), and the diversity of views around the acceptable use of animals.

To a large degree, management of impacts of research on animal welfare occurs through the development and ongoing refinement of research methods, with AECs reviewing justifications from researchers for using any given method to answer a research question or meet an educational aim. In the absence of a robust foundation for evaluating animal welfare impacts, selection of one research or education method over another, and evaluation of these methods, can be subjective. Similarly, the likelihood of animal welfare impacts occurring can be difficult to evaluate for many methods, and options for replacement, reduction and refinement hard to articulate. Procedures for common approaches to wildlife monitoring and research (e.g. traditional trapping, tracking and marking techniques) are readily available, but researchers and AECs must often 'reinvent the wheel' when developing procedural documents for less commonly used wildlife research methods. Procedures

for new and emerging technologies, and meeting contemporary expectations around animal welfare considerations pose further challenges for researchers and AECs alike.

This book is a practical resource for wildlife researchers and educators of all career stages, as well as AEC members and their supporting staff, to navigate animal ethics approval processes as they apply to Australian wildlife research. The book is presented in three sections. The *first* section ('Animal ethics and Australian wildlife research') addresses the administration and evaluation of wildlife research (legislative requirements, the operation of AECs, crafting and reviewing applications, and emerging and ongoing issues). The *second* section ('Research methods') details a range of wildlife research methods in the form of general operating procedures (GOPs). These GOPs are a guide to conducting these techniques in a manner that minimises negative animal welfare impacts. The *third* section ('Species profiles') focuses on taxon-specific considerations for a range of native and exotic wildlife occurring in Australia. Each GOP and species profile follows a standard template, and has been developed through extensive consultation with the Australian wildlife research community.

This guide has been compiled by over 200 researchers with considerable experience in field-based wildlife research, teaching, AEC administration, and the mentoring of other researchers. The diverse viewpoints and experiences presented here have been provided by academics, government scientists, practitioners, consultants, early career researchers and post-graduate students. The aims and methods of wildlife research are diverse, and the nature and requirements of individual research projects context specific. Consequently, this book is not intended to be prescriptive, but instead constitutes a resource for developing project-specific methods and AEC applications. It is our hope that this resource will

support best practice wildlife research, the ongoing refinement of procedural documents, and assist researchers and AEC members in navigating animal ethics approval processes.

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