

Preface

This book aims to provide the reader with the means to identify any species of Queensland frog. Because many of these frogs are also found beyond the Queensland border, the book can also be useful for frog identification in many other parts of the country, particularly northern New South Wales and the Northern Territory.

Frogs, for better or worse, are remarkably variable creatures when compared to, say, birds. Many species adopt different colours or patterns by day or night. In some cases, males are different from females, and many species can change their appearance remarkably when breeding. For some species, there is an almost bewildering variety of colours and patterns. For instance, Ornate Burrowing Frogs, *Platyplectrum ornatum*, perhaps the most extreme example, could be described as grey, brown, yellow, red, orange or white; blotched or immaculate; with or without a broad or narrow stripe running down the back, which is darker or lighter than the background; with smooth, warty, or even rough, 'sandpaper' skin! With practice, however, an Ornate Burrowing Frog is as easy to distinguish from most other frogs as it is to tell any of the myriad breeds of dog from a cat.

Frost *et al.* (2006) reviewed relations among the world's amphibians. This review has been followed in assigning the frogs to six families: Bufonidae ('true toads' – the introduced Cane Toad), Hylidae ('tree

frogs'), Limnodynastidae, Microhylidae ('narrow-mouthed frogs'), Myobatrachidae and Ranidae ('true frogs'). Prior to the Frost *et al.* 2006 review, Limnodynastidae was grouped with Myobatrachidae (and called 'southern frogs'), but this arrangement was unsatisfactory to many. In addition, Australian 'tree frogs' (Hylidae) have, on occasion, been given their own family: Pelodyadidae.

Within each family section of this book, species accounts are arranged alphabetically by genus then species. While this arrangement may not appeal to some, who might see groupings of similar-looking species as a useful adjunct to identification, alphabetical ordering is preferable for rapidly accessing different species accounts. To some extent this negates the need for similar species to be presented together.

Frog taxonomy is changeable because, perhaps unfortunately, nature is under no obligation to make things easy for us, and so hasn't made a set of visible characters that easily define each family (or genus or species for that matter) of frogs. These days a species or family may be defined by its genetic 'distance' from another species or family. The genetic distance required to separate two species, for example, is somewhat open to interpretation. Since the publication of Frost *et al.* (2006) subsequent scientific papers have examined new evidence and reinterpreted and re-examined old genetic and morphological evidence