

PREFACE

This identification guide is one of a series of ten books that include keys to most of the fresh- and brackish-water invertebrates in southern Africa. The paucity of identification guides suitable for non-specialists has become a yawning gap in the tools available to scientists, managers and scholars concerned with the assessment and management of water resources. It is hoped that the present guides will be of value to these and other users, and that the environment will benefit as a result. The principal aim of this series is therefore to synthesise much of the existing knowledge on the identification of freshwater invertebrates into a standard format that is accessible to users who wish to identify taxa beyond their field of expertise.

Identification guides tend to be perpetually out of date, particularly in terms of nomenclature, due to advances in systematics. To keep abreast with some of the changes in nomenclature, readers are referred to the checklists in *The Aquatic Arthropods (Insects, Crustaceans and Mites) of South(ern) Africa* (<http://www.ru.ac.za/aquatatalogue>). There is also a possibility that the present series will be periodically revised, but this is contingent on future funding.

Identification of taxa to species level is the ideal to which we would like to strive, but for a number of reasons this is not always possible: the present knowledge of taxa does not often permit such detailed identification, and in instances where taxa are well known, identification to such a fine resolution is usually constrained by space considerations and cost effectiveness. In some instances, particularly for small, relatively well-researched groups such as the freshwater molluscs, taxa have however been identified to species level. Since new species are constantly being discovered, users of these guides are cautioned against attempting to 'make' unusual specimens 'fit' existing keys. Users are encouraged to inform experts of such specimens, to take note of new distribution records, and to lodge all collections with well-known museums, particularly those that are depositories for collections of freshwater invertebrates (e.g. the Albany Museum, the South African Museum, the Transvaal Museum, and the South African National Collection of Insects).

This series includes an initial introductory volume containing general information and a key to the families of invertebrates. Subsequent volumes contain keys to different invertebrate groups, most often logically clustered together but in some instances the need for cost-effectiveness has resulted in the creation of some rather uncomfortable 'bedfellows', such as the arachnids and molluscs that are combined in Volume 6.

The books in the series are the culmination of years of effort by a large number of people and organizations: Shirley Bethune, Jenny Day, Barbara Stewart, Nancy Rayner and Maitland Seaman started the project in 1986; Jenny Day, Bryan Davies and Jackie King initiated contact with authors and began the editing process, and Barbara Stewart and Elizabeth Louw later became involved in editing the Crustacea chapters. A decade later, Chris Dickens successfully obtained funding from the Water Research Commission (WRC) for the completion of the project and later took on the job of Project Leader; Steve Mitchell managed the project from the WRC; from 1998 Jenny Day took on the role of senior scientific editor, and Irene de Moor was contracted to take on the job of managing editor. All of those above (with the exception of Nancy Rayner and Elizabeth Louw) as well as Mark Chutter, Ferdy de Moor, Lil Haigh, Arthur Harrison, Rob Hart, and Martin Villet, are part of the Editorial Board that was initially formed in 1998.

The production of the Coleoptera volume has been a long and arduous process. Many obstacles have had to be overcome, particularly due to the untimely death of Sebastian Endrödy-Younga, who was to have been the editor of this book. Beetle specialists are relatively few and far between, so the loss of Sebastian was devastating. Fortunately, Riaan Stals was able to step into the breach as the main author and scientific editor. Besides being the author of numerous chapters, he has also had to update and rewrite many of the original chapters, recruit new authors and artists, compile a vast index of distribution records, and produce most of the figures in this book. It has been an exhausting and at times traumatic process, but the final product is a tribute to the enormous amount of time and dedication that he has spent on this volume.

For various reasons there have been some changes to the editorial format in the present volume compared to that of other volumes in the series. For ease of reading, taxonomic credits do not appear after species names but are listed in a comprehensive appendix, that also includes distribution records in Africa, at the end of the volume. In the case of non-African species, however, the taxonomic credits appear in the main text of the chapters. The geographical coverage, while focussing principally on southern Africa, also includes distribution records from elsewhere in Africa. Experts will notice certain omissions in this volume, particularly in relation to descriptions of immature stages.

Numerous authors, including those in this book, have contributed time and expertise towards the drafting of the keys. The authors were not paid for their efforts, which were given in the true spirit of science and a love of their work.

A small donation from the Zoological Society of Southern Africa helped to initiate this project, but the series is largely a product of the Southern African Society of Aquatic Scientists (SASAQS), whose members are acknowledged for their support.

Umgeni Water, the South African National Collection of Insects (SANC) (ARC–Plant Protection Research Institute), the Albany Museum, and the Water Research Commission have all given organisational support at various stages of the present publication.

Chris Dickens, Steve Mitchell & Irene de Moor