

REVISED EDITION

# DANGEROUS SNAKES

OF AUSTRALIA

An Illustrated Guide to Australia's  
Most Venomous Snakes



Peter Mirtschin / Richard Davis

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# INTRODUCTION

The dangerous venomous snakes are a fascinating part of Australia's unique wildlife. Undoubtedly, they are the most poisonous snakes in the world. Why are they so venomous and what is their place in the ecology of our continent? The present authors do not believe that 'the only good snake is a dead one', but that venomous snakes, like all animals, play an important role in our environment.

The fact remains, however, that these creatures are dangerous, and their bite may result in death. It is right and proper, therefore, that they be treated with respect and not handled by amateurs. Through greater understanding of our venomous animals and through recent research into the management of snake bite, particularly by Dr Struan Sutherland and his team at the Commonwealth Serum Laboratories in Melbourne, the outlook for snake-bite victims in Australia has significantly improved. It appears that this same research has led to the improved management of other animal bites, such as spider bite and bee sting, both in Australia and overseas.

Snake venoms are extremely complex mixtures of proteins and enzymes, all with different actions. It is likely that in the future some of these components will be isolated and found to be important. The anticoagulant fractions may be useful for our Red Cross blood banks. The neuromuscular blocking components may be useful for anaesthesia or treating tetanus. So vast and varied are the proteins that even a cure for some cancers may be hidden in the venoms, waiting for an enthusiastic researcher to isolate it. In medicine the study of venoms has repeatedly led to greater understanding of human physiology and pharmacology.

We believe that it is time the general public questioned

the tradition of killing every snake possible. Emotional, front-page reporting of snake bites by our newspapers is unfortunately a colourful, rather extreme view of the true situation. Actually, snake bite is a rare phenomenon and the prognosis for its victims has been greatly improved.

We hope this book will

- Provide information and a key for identifying dangerous snakes.
- Stimulate recognition of the need for the conservation of our venomous snakes.
- Act as a reference book for first aid and hospital management of snake-bite victims.

PETER J. MIRTSCHIN  
RICHARD DAVIS

# PART ONE

## SNAKES: IDENTIFICATION AND CONSERVATION





# Chapter 1

## THE RELATIVE DANGER OF AUSTRALIAN TERRESTRIAL SNAKES

There are thirty different species of dangerously venomous snakes in Australia and for various reasons it is difficult to list them in order of their relative danger to human beings. The net effect of a snake bite depends on the combination of many factors. These can be divided into victim factors, snake factors, and management factors.

Victim factors	Snake factors	Management factors
age	size	first aid
weight	venom toxicity	hospital management
health	number of bites	
body chemistry	whether venom inoculated	
	volume of venom inoculated	

Table 1.1 *Factors affecting snake bite*

Snake bite is more serious in the very old and the very young. In particular, bites occurring in small children are not uncommon and are very serious. Victims who enjoy good health are less likely to be seriously affected than others. Some people are allergic to snake venom and a major allergic reaction, called anaphylaxis, may occur immediately following a bite. This idiosyncrasy is more likely to occur in allergic individuals and also people who have been bitten previously, such as herpetologists.

A bite from a large adult snake is potentially more dangerous than one from a small juvenile snake. There is variation, too, in the toxicity of snake venoms:<sup>1, 2</sup> very