

INTRODUCTION

*Would you be surprised to learn that a large estuarine crocodile, *Crocodylus porosus*, would travel 20 km a day purposefully along a coastline for 3 weeks, to go home? I was, when we tracked a large male 'going home' after he had been translocated 120 km across Cape York by helicopter in mid August 2004. He spent the next 3 months or so swimming around in his new surroundings and then, on 4 December, started moving north. He rounded Cape York in mid-December and headed down the west coast of the Cape until he reached the same river where he was captured, arriving home on Christmas Eve! Two aspects are spectacular: he behaved as if he really knew where he was going and he covered >400 km in just 20 days (Fig. 4.35). Ocean currents were favourable for at least some of the journey but there must have been a lot of active swimming too. I have known crocs from close up for a long time, and already had an enormous admiration for their capabilities, but this observation showed them in a new light, exposing excellent navigational skills and challenging beliefs about their supposedly limited scope for sustained activity. It really jolted me!*

It is a good time to be writing a book about crocodylians. There is a huge amount of new information to review and incorporate and, like that long and deliberate journey home, much of it helps us to understand them a lot better.

They are amazing animals! This book is about what crocodylians are, where they came from, what they do and how they work.

INTRODUCING CROCODYLIANS

Everybody knows about crocodiles and alligators, and children learn about them very early (Fig. 1.1). Crocodiles, alligators, caimans and gharials, the Crocodylia, known collectively as crocodylians (or 'crocodilians': see below) are the world's largest living reptiles. The largest of them, probably the estuarine or saltwater crocodile, *Crocodylus porosus*, can grow to at least 6 m and weigh more than a tonne. They are creatures of great contrast. They can remain patiently still for ages, yet can also move like lightning to snap up a meal. They are formidably strong, active predators, with jaws that can tear apart a calf or a kangaroo, yet a mother (or a father) can gently assist her hatchlings out of the eggs, and carry them to the water in her mouth. Because large crocodylians can (and do) eat people, they invite fear and loathing, but they also inspire curiosity and admiration. Few people feel neutral about crocodylians.

Crocodile-like reptiles, the Crurotarsi (Pseudosuchia), diverged from the basal archosaurs in the Triassic more than 200 Mya (see Fig. 2.3) and the clade to which all the modern species belong, the Crocodylia, has been around for ~100 million years. Only a few of them survived the big extinction event that came at the end of the Cretaceous. That event, the Cretaceous–Palaeogene extinction (the K-Pg extinction, known previously as the K-T

*The estuarine or saltwater crocodile, *Crocodylus porosus*, showing the typical crocodylian form. (Illustration DSK, courtesy Weldon Owen Publishing)*