

GALLOPING IN *CROCODYLUS JOHNSTONI* — A REFLECTION OF TERRESTRIAL ACTIVITY?

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SUMMARY

Crocodylus johnstoni commonly gallop when released after being caught and handled. Galloping is a bounding gait and, in addition to increased velocities, it allows crocodilians to rapidly negotiate obstacles such as rocks and logs when on land. Bound length and gallop velocity both increase with increasing snout-vent length, but not in the same proportion: small *C. johnstoni* bound more frequently than larger ones.

INTRODUCTION

Although living crocodilians may spend appreciable portions of the day and night on land, the terrestrial excursions of most species rarely extend far from water. The observations of Cott (1961) that "when disturbed ashore a Nile crocodile's immediate reaction is to make for water with speed" may be applied to most crocodilians. Yet the suite of terrestrial movement patterns (belly slide, high walk and gallop; Cott, 1961; Zug, 1974) shows little sophistication. Typically a disturbed crocodile will burst into a rapid high walk or belly slide (depending on the slope of the bank), sometimes colliding with trees and rocks before hitting the water "with tremendous impact" (Cott, 1961) and submerging. Galloping, as a form of crocodilian terrestrial locomotion, has been observed rarely (Cott, 1961; Zug, 1974), and then only in juveniles.

During a field study of *Crocodylus johnstoni*, the endemic Australian freshwater crocodile, it was found that individuals surprised on banks, and about 80% of 250 juveniles and adults released after being marked, galloped back to the water. As the gallop is spectacular, and had hitherto rarely been described in crocodilians, the opportunity was taken to collect preliminary data on it.

During the dry season (May to November), *C. johnstoni* frequently inhabits a variety of permanent and temporary pools, and overland travel between them seems commonplace, although there is little quantitative data on the frequency of such excursions. This paper describes the movement and attempts to interpret the common use of galloping by *C. johnstoni* as part of an adaptive suite reflecting greater terrestrial activity.