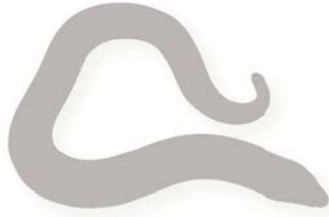


SCINCIDAE

Acontias plumbeus Bianconi, 1849

GIANT LEGLESS SKINKS



AGONISTIC BEHAVIOUR

On December 24, 2011 at approximately 10:20 two Giant Legless Skinks (*Acontias plumbeus*) were photographed, apparently in combat (Fig. 1) along the S21 Nwamihiri Road, in the southern Kruger National Park, Mpumalanga, South Africa (approximately S 25° 06' 25"; E 31° 42' 48"; 270 m a.s.l.). This is the first published report of combat in this species. At the time of observation the weather was overcast and humid, and the ground was visibly wet from overnight rainfall. The length of each animal was estimated to be about 300 mm. The apparent lack of obvious sexual size dimorphism (SSD) in *A. plumbeus* prohibited the designation of the animals to specific sexes. The most plausible explanation for such behaviour is male combat. Male combat is widespread among squamate reptiles with sexual selection for larger bodies producing

male-biased SSD in many species (Shine 1989, 1994). However, the assertion that this observation represents male combat is at odds with the apparent lack of SSD in *A. plumbeus*. While SSD is variable (with respect to direction and magnitude) and phylogenetically labile within scincids (Cox *et al.* 2007), it appears generally absent in acontine skinks (Heideman *et al.* 2008). This finding, along with others (e.g., Gans 1978), suggests that SSD may be constrained in fossorial lizards because of the mechanics required to move through substrate, potentially decoupling the link between large body size in males and male combat in certain lineages. Indeed, Cox *et al.* (2003) found that sexual selection for large male body size explained only a small fraction of SSD variation across 497 species of lizard, confirming that body size is likely under multiple non-exclusive selective pressures in this clade.

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Photo for image reference provided by Marius Burger

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Figure 1. Two Giant Legless Skinks (*Acontias plumbeus*) from the Kruger National Park, Mpumalanga, South Africa, in apparent combat.