

A NOTE ON A NEWLY HATCHED *VARANUS TRISTIS TRISTIS* IN THE GREAT VICTORIA DESERT, WESTERN AUSTRALIA

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Varanus tristis is a small, generally arboreal, monitor lizard found throughout Australia except for the far south. Two subspecies are recognised within this vast range; *V. tristis tristis* Schlegel 1839 and *V. tristis orientalis* Fry 1913. They can be distinguished by the presence of black pigment and more spinous caudal scales in *V. tristis tristis* (Mertens 1958). The pattern and colouration of the species varies greatly throughout the range. In general, it can be said that those from the west of Australia are darkest in colour, with those from around Perth showing jet black colouration (Schmida 1985), and those from the east being lightest, often with no black pigment at all. The common name of black headed monitor comes from specimens which exhibit a black head and tail, with lighter colouration over the body. The pattern and colouration of *V. tristis* in different parts of Australia is discussed by Christian (1981).

It is well known that the colouration of juvenile monitors is often much brighter than that of the adults. In some species the patterns of the hatchlings are also different, so that the newly-hatched monitor bares very little resemblance to its parents (e.g. *V. dumerilii* (Horn & Schulz 1977); *V. rudicollis* (Horn & Peters 1982); *V. spenceri* (Peters 1986); *V. varius* (Horn 1991)). What advantages brighter colours and more vivid patterns bestow on the small monitors is not known. Undoubtedly monitor lizards are much more vulnerable to predators when they are small, and this supports suggestions that bright colours reduce mortality by predation amongst hatchlings, whether by providing them with cryptic colouration in certain habitats, or even by presenting an appearance that discourages predators (perhaps by mimicking a less palatable animal). The size of adult monitors may exclude them from microhabitats used by the juveniles, whilst smaller specimens are precluded from habitats frequented by the adults (e.g. *V. komodoensis* (Auffenberg 1981)). Perhaps in some species the shift to adult colouration coincides with a change in habitats.

The fact that very few juvenile monitors are encountered in the wild (judging from the paucity of reports in the literature) suggests that they are very much more secretive than the adults, and as a result very little (often nothing at all) is known of the behaviour of hatchling monitor lizards in the wild. The young of at least two species are known to remain with their siblings for the first few weeks or months after birth (*V. bengalensis* (Auffenberg 1983) and *V. griseus caspius* (V. Makeyev, personal communication)). Neither of these species shows very drastic differences in appearance between adults and juveniles.

In 1989 Eidenmuller published a report on the captive breeding of *V. tristis orientalis*, and included a photograph of a hatchling that showed somewhat brighter colouration, but a similar pattern to its parents. Other dwarf monitors (i.e. those assigned to the subgenus *Odatria* (Mertens 1942) have juvenile patterns and colourations that are similar to the adults (e.g. *V. gileni* (Boyle & Lamoreaux 1983); *V. acanthurus* (R. Wicker, personal communication); *V. brevicauda* (Schmida 1974); *V. storri* (Bartlett 1982)).

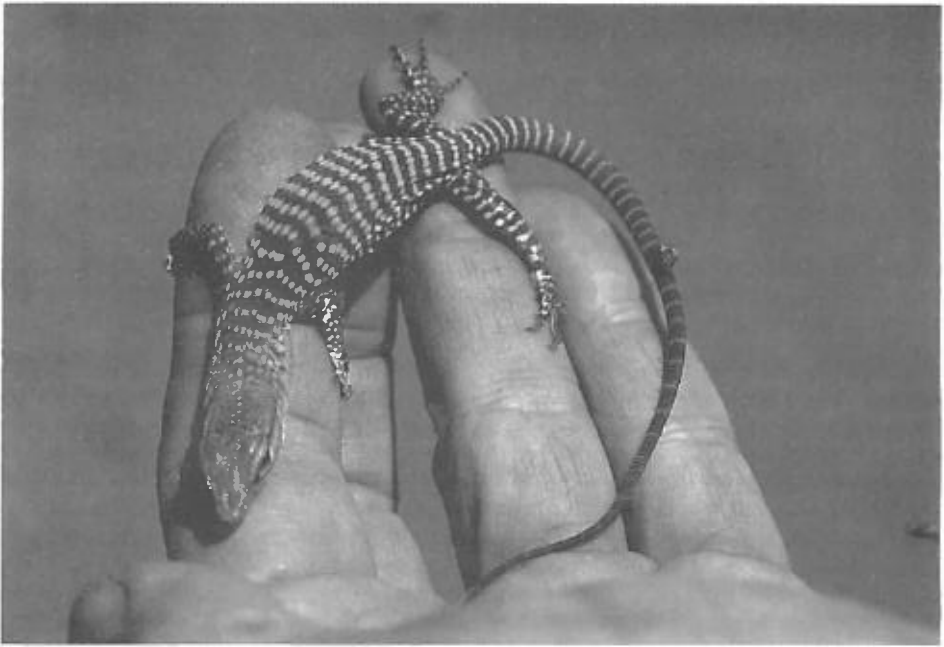
In 1991 I was lucky enough to see a very young specimen of *V. tristis tristis* in the Great Victoria Desert of Western Australia. This animal fell into a pit trap between 1530 and 1930 hrs. on the 3rd of March at 28° 08' south, 123° 55' east, in an area covered with spinifex grass (*Triodia basedowi*) with some marble gum trees (*Eucalyptus gongylocarpa*) and *Acacia* bushes. It was trapped on a flat area of sand with dense spinifex and scattered, mainly dead *Acacia* bushes, approximately 50 metres north of a sandridge. It weighed 4.1 grammes and measured 72mm from snout to vent with a 115mm tail. Its small size and the presence of a fresh umbilical scar indicated that the monitor was a newly hatched specimen. Unfortunately it had left no tracks, and so it was impossible to ascertain where the animal had come from. In this part of Australia adult *V. tristis* are highly arboreal animals (Pianka 1971, 1982), but the nearest tree to the pit trap was more than 100 meters to the west. Various authors have cited burrows and/or tree hollows as the places where *V. tristis* lays its eggs, but none of these claims are supported by actual discoveries of nests. If this animal hatched in a tree and was intent on continuing an arboreal existence its presence in this area is hard to explain.

Unlike Eidenmuller's example (1989) the parents of this specimen were, obviously unknown. However all the specimens seen in the area in the past have been virtually completely black with a few golden flecks (E. Pianka, personal communication) and so it is reasonable to suppose that the parents of this animal were similar. The very different appearance of this hatchling compared to that of the adults in the area, and its position when trapped may suggest that juvenile *V. tristis* lead very different lives from the adults. Perhaps it sheltered in the spinifex, or under the bark of *Acacia* bushes, but until further examples come to light and more direct observations are made, no conclusions can be drawn.

This note would have been impossible without the generous help of Professor Eric R. Pianka, Austin, Texas.



Varanus Tristus Adult



Varanus tristis Juvenile

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