

A NOTE ON *VARANUS PANOPTES RUBIDUS* (STORR 1980) IN WANJARRI, WESTERN AUSTRALIA

DANIEL BENNETT

118 Sheffield Road, Glossop, SK13 8QU

Varanus panoptes rubidus was described in 1980, from material previously assigned to *Varanus gouldii* (Storr 1980: 276-277). Between 23-25 February 1991 I observed several specimens feeding on carrion at Wanjarri, Western Australia and was able to take measurements from two adults and a juvenile.

Wanjarri (or Kathleen Valley) is an abandoned cattle station situated 110km south of Wiluna on the Agnew-Wiluna Road (27° 25' south, 120° 40' east). Predominant vegetation is Mulga, with many stands of dead trees. The ground is sandy, but so hard packed by cattle that it is impossible to trace spoor on it. The cattle have recently been removed and the farm is now under the control of Conservation and Land Management of Western Australia. The only other monitor I found here was a *V. caudolineatus* 112 mm SVL, (135 mm tail, 14.5g weight) in the stump of a dead Mulga tree at 0740 in the morning.

At least four (possibly five) adult (over 1 metre) *V. panoptes rubidus* were seen in an area of less than .25 km² over 48 hours. They were always seen alone, and only seen in the mornings (between 0720 and 0950 hrs.) and in the late afternoon (after 1630 hrs). When encountered two specimens were caught, one was not disturbed and two were chased into burrows. When disturbed the monitors would usually hold their ground for between 30-120 seconds, with the body and throat inflated and mouth open, hissing loudly. After this period they would walk to the shade of a bush, and resume their defensive posture for a while, before walking to another bush. The monitors never stopped moving in the open, and when pursued moved directly from one bush to another, eventually breaking into a run of between 40-120 metres to shelter in a burrow. Two animals chased in the same direction on the same morning took refuge in the same burrow. The second remained below ground for just 20 seconds before bursting out and running directly to another burrow 20 metres away. This was the only interaction observed between monitor lizards, although *V. panoptes rubidus* have been known to congregate at Wanjarri to feed on carrion and bipedal combat has been observed at these meetings (Calm Kalgoorlie, personal communication). The only animal that behaved in a different way when approached was a specimen that had been caught the previous night and had spent the night in a tub of water. When released in a cleared area it made no attempt to run away but immediately assumed a bipedal posture and made several lunges at me with its mouth wide open. I have observed identical lunges (in which the lizard falls short of its annoyner and never tries to bite) in *V. bengalensis nebulosus* and *V. griscus caspius*, but I have never seen the latter assume a bipedal stance. After more than 20 minutes of standing in open sun the lizard ran bipedally for about 3 metres, dropped onto all four legs, rushed to the nearest tree and climbed to the top. In all other cases monitors used burrows as refuges. Of those known to have been used by *V. p. rubidus* three were excavated under buildings and two were dug under bushes. All holes had entrances of about 15 cm in diameter, but no further measurements were possible.

SIZE

Two adults from the farm and a juvenile caught in *Spinifex (Triodia)* several kilometres away were measured and weighed. The juvenile measured 205 mm SVL, tail length 336 mm and weighed 89g. The adults measured 640 mm and 560 mm SVL, tail lengths 905 mm and 792 mm, weights 5000g and 1750g. The heavier animal was very robust and had a noticeable distention of the belly. It may be the largest *V. panoptes rubidus* yet recorded. Its head measured 82 mm from snout to the posterior edge of the ear. The lighter animal was extremely thin, it had no fat deposits in its tail and the caudal vertebrae were clearly visible through the skin. Because of the huge amount of food that was apparently available (see below) it was presumed that this animal was either a new arrival in the area or was suffering from a chronic disease.

FOOD

A well driven by a windmill had operated, probably for many years, at Wanjarri and had recently failed. The current drought in Western Australia combined with the drying up of the well had led to the death of many kangaroos. At least 11 corpses of both Red and Grey Kangaroos (*Macropodus rufus* and *M. fuliginosus*) were found around the farm buildings. Some were in dense shade, others in direct sunshine. They were in various states of decay, ranging from fresh through putrefying to desiccated. Strangely, monitor lizards were only seen to feed from a single corpse lying at the side of a farm building in a sheep enclosure; three were found feeding from it at different times and another was found less than 20 metres away. This corpse had attracted more flies, and therefore contained most maggots, and was in a state of high putrefaction. It had been eviscerated and the monitors were seen feeding from the abdominal wall and the neck. When feeding on large items of carrion *Varanus panoptes rubidus* tears at the carcass with the front claws, freeing pieces of meat which are then picked up in the mouth and swallowed. None of the other carcasses examined showed any signs of having been eaten by monitor lizards.



Varanus panoptes rubidus

photo: D. Bennett

Although feeding on carrion has not previously been reported in *Varanus panoptes rubidus* it is not at all surprising that this takes place. Other large Australian Varanids are reported to be carrion eaters; *V. gouldii* (White 1952) and *V. varius* (Kennerson 1980). However it is unusual for large numbers of animals to die in the same place over a short period of time. In areas outside mankind's influence it must be a very rare occurrence. This superabundance of food is probably the reason for such a high number of adult lizards being found in such a tiny area. But why was only one corpse eaten when so many were available? Possibly it is easier for smaller monitors to feed on a carcass that has already been eviscerated by a larger one and thus provides many surfaces for feeding from, but all the animals in this study were large adults. Perhaps *V. panoptes rubidus* has a preference for meat at a particular stage of decomposition, but studies elsewhere have found that monitor lizards prefer fresh corpses to rotten ones when given the choice (Auffenberg 1981: 192-193), and Ward and Carter (1988) reported that *V. varius* will eat carrion at all stages of decomposition. Another possible explanation is that thermoregulatory considerations made this the most desirable food item. If many animals were feeding from the same carcass some order of hierarchy is likely to have been established, and this may explain the presence of extremely fat and extremely thin animals in the same area.

The taxonomy of the "gouldii" group of monitors (i.e. *V. panoptes panoptes*, *V. panoptes rubidus*, *V. gouldii gouldii*, *V. gouldii flavirufus* and *V. rosenbergi*) is still rather cloudy, and further complicated by the confusion regarding their nomenclature (Bohme 1989). The largest specimen in this study could not be distinguished by its pattern alone, which had almost completely faded, and was only definitely assigned as *V. panoptes* because it had 223 rows of scales at midbody. Had this number been a little smaller it would have been impossible to distinguish the animal from *V. gouldii flavirufus* using the available keys.

ACKNOWLEDGEMENT

I am very grateful to Professor Eric R. Pianka of the University of Texas at Austin for making this note possible and for innumerable acts of kindness.

REFERENCES

- Auffenberg, W. (1981). *The Behavioral Ecology of the Komodo Monitor*. University Presses of Florida, Gainesville.
- Bohme, W. 1989. Bonn, September 0-22 (1989): The Identity of (Grey 1938) and the Nomenclature of the *V. gouldii* Group. *Abstracts of the International Symposium on Varanids*.
- Kennerson, K. (1980). Carrion Diet in the Lace Monitor *Varanus varius*. *Herpetofauna* **12**(1):36.
- Storr, G.M. (1980). The Monitor Lizards (Genus *Varanus* Merrem, 1820) of Western Australia. *Rec. West. Aust. Nat.* **8**(2): 237-
- Ward, D.L. & Carter, D.B. (1988). Carrion Feeding in *Varanus varius* - Notes from a Field Study. *Herpetofauna* **18**(2):22
- White, S.R. (1952). Destruction of Nesting Birds by Reptiles. *West. Aus. Nat* **3**(5): 119-120.