Cannibalism in Captive Varanus timorensis

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Abstract - An observation of cannibalism among sibling *Varanus timorensis* in captivity is presented. It is suggested that cannibalism may not be common in *V. timorensis*, however care should be taken when housing animals together.

An adult pair of wild-caught *Varanus timorensis* has been kept in captivity since 2004 in the author's private collection. On 5 February 2008, the female laid 13 eggs (8 fertile and 5 infertile). The eggs were placed into an aquarium-type incubator with an incubation substrate consisting of a perlite and water mixture (1:1 ratio by weight). The eggs were incubated at 29 °C, and began to hatch on 1 June 2008, after 117 days. Small slits were made on the eggs that hadn't pipped by themselves; one neonate was found dead in the egg. By the next day, all remaining hatchlings emerged, four healthy monitors and three with congenital spine deformities. The healthy hatchlings averaged 6.5 cm in snout to vent length (SVL) and 16 cm in total length (TL), and 4 g.

The seven hatchlings were placed together in a glass enclosure measuring 50 x 30 x 35 cm ($1 \times x \times h$).

The enclosure consisted of newspaper substrate, cork bark-covered enclosure walls, numerous branches and a shallow water dish (2 cm deep). The ambient room temperature was maintained at 27 °C and a 26 W Exoterra ReptiGlo 5.0 light bulb was placed on the top of the enclosure for additional basking and UVB exposure. Two out of the three deformed monitors died within 2 days of hatching, both found dead in the water dish. The remaining one started to eat, along with the healthy ones, on wild-caught insects dusted with Korvimin ZVT+Reptil vitamin and mineral supplement. Food was offered on a daily basis. Despite some difficulties in moving, the deformed juvenile gained weight. Minor fights among the young monitors were observed during feeding time when the same prey item was captured by more than one individual. The fights mainly targeted



Fig. 1. Hatchling Varanus timorensis emerging from eggs.



Fig. 2. A one week old juvenile *V. timorensis*.

Fig. 3. Neonate with noticeable spinal deformity at the base of the tail.

the deformed individual where it was often grabbed by a stronger sibling. Since these fights had no serious consequences, the author decided to leave them together in the group.

On 10 August 2008, the author left the juveniles alone after offering them wild-caught insects. Returning twenty minutes later, he found one healthy juvenile attempting to swallow the deformed sibling. At the time of observation, the head had already been fully swallowed. The forelegs and part of the abdomen was inside the mouth of the healthy one. The deformed juvenile remained motionless and appeared dead. The consumer had difficulties swallowing and moving with the sibling, and attempts were made to remove the deformed individual from the throat as it could have led to the death of both animals. By the time the deformed monitor was retrieved, it was already dead. The healthy juvenile immediately scurried away without any problems. Within one minute, it started to eat an appropriate sized grasshopper. At the time of observation, the two juveniles were of equal size (mass, SVL and TL). The remaining siblings were left together in the same cage without further problems.

Cannibalism has been documented in other species of monitors including V. salvator (Shine et al., 1996), V. rosenbergi (King and King, 2004) and V. griseus (Stanner, 2004). Based on the literature, cannibalism has not been documented in V. timorensis (Schmutz and Horn, 1986; King and Smith, 2004) and even small groups can be kept together (Behrmann, 1981; Lambertz, 1995; Bennett, 1998). The cause of cannibalism in this case remains unknown. The author suspects two possibilities for this unusual behavior. The first possibility is that the two animals started to eat the same prey item and the stronger individual held on and began to swallow the weaker one. The other possibility is that the abnormal movements of the deformed monitor resembled a prey item. In the wild, V. timorensis occasionally consume smaller reptiles (Losos and Greene, 1988; King, 1993). This, combined with the feeding time and the scent of insects in the cage, could have triggered predation on a conspecific. The author doesn't state that cannibalism is common in V. timorensis, but care should be taken when placing healthy animals together with unhealthy ones.

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