HUSBANDRY NOTES ON THE ASIAN RAT SNAKE GONYOSOMA OXYCEPHALA

S Pickersgill¹ and R Meek²

¹ Department of Pure and Applied Biology, University of Leeds, UK ² 8 Mountfield Road, Waterloo, Huddersfield, U.K.

The reproductive biology of rat snakes is relatively well documented although much of this data deals with the North American forms (e.g. Coote & Riches, 1978). However, there is little detailed information on the Asian rat snakes despite their rather frequent appearance in the pet trade. One Asian species often imported is *Gonyosoma (= Elaphe) oxycephala*, an arboreal form with a reputation in captivity for being "difficult" particularly when dealing with wild caught adults (Trutnau, 1986). It is found over a wide area in Southeast Asia where it principally inhabits regions with dense vegetation and very high humidity levels and indeed in captivity such conditions are apparently required if reproduction is to take place (Trutnau, 1986). However, whilst reviewing the recent literature on captive husbandry of snakes we were unable to locate any detailed descriptions of egg incubation techniques, or rearing of the hatchlings of this species. In this paper we provide this basic information, which concerns a clutch of eggs deposited by an imported adult.

OBSERVATIONS

A clutch of seven eggs were deposited by an imported female *Gonyosoma oxycephala* on 18 November 1986. These were placed in vermiculite to which water was added and maintained at a weight ratio of three parts water to one part vermiculite. Temperatures during incubation were kept at 26-30°C. Hatching began on 30 March 1987 continuing over a three day period, thus giving an incubation period of approximately 132 days. This is considerably longer than



Plate 1: Threat posture adopted by juvenile Gonyosoma oxycephala

found for North American rat snakes at similar incubation temperatures (eg Coote & Riches, 1978: Meek 1980). Table 1 shows total lengths and weights of the hatchlings and also the dates of the first sloughs.

The animals were housed individually in small plastic containers for ease of feeding. The containers were maintained at around 28°C, however, initially all the snakes refused food (small dead mice 1-7 days old) and were subsequently force fed on one small dead mouse per week, covered in a multivitamin paste (St Aubrey High Calorie Vitamin Concentrate). The mice were offered to the snakes in the afternoon and left in the containers overnight; those snakes which did not eat were force fed the following day. Voluntary feeding first occurred in snakes 6 and 7 on 15 June 1987 but eventually, by August, all were feeding of their own accord on approximately one small mouse per week which was usually consumed during night or late evening. Due to space limitations it was decided to retain only three snakes (numbers 3, 6 and 7 in Table 1) for exhibition purposes, the weights of which on 20 October 1987 are shown in Table 1 indicating an approximate two-fold increase in weight since hatching.

In contrast to adult *G. oxycephala* which can on occasion be somewhat docile, the juveniles were all rather fierce, adopting a threat posture of rearing up and inflating the throat and striking when approached (Plat 1). This behaviour has persisted to an age of seven months.

TABLE 1 Hatchling measurements of Gonyosoma oxycephala with secondary weight measurements of three retained snakes.

	Weight at hatching (g)	Weight on 20.10.87	Length at hatching (mm)	Date of first slough
1	19.5		560	12.4.87
2	16.1		510	16.4.87
3	18.8	29.5	565	13.4.87
4	15.6		530	17.4.87
5	18.3		550	12.4.87
6	19.1	31.5	560	13.4.87
7	17.3	37.5	540	14.4.87

REFERENCES

Coote, J.G. & Riches R.J. (1978) Captive reproduction in North American colubrids of the general Lampropeltis and Elaphe. Cotswold Herpetological Symposium report. 5; 6-15. Burford: Cotswold Wildlife Park.

Meek, R. (1980) Reproductive behaviour of two temperate zone reptiles *Elaphe obsoleta* and *Lampropeltis getulus A.S.R.A. Journal* .**3** 45-59.

Trutnau, L. (1986) Nonvenomous snakes. New York; Barron's.