

NOTES ON THE REPRODUCTION OF *PSAMMOPHIS ELEGANS*

STEPHEN SPAWLS

Wa Secondary School, Wa, Upper Region, Ghana

On the 9th of December 1979 at Wa, Upper Region, northern Ghana ($10^{\circ}.03'N$: $2^{\circ}.30'W$), two specimens of *Psammophis elegans* were captured. The snakes were observed lying coiled together in the branches of a small tree on the slopes of a rocky hill some 3km south-east of Wa town, at about 3 p.m. The snakes were lying intertwined in a large coil, with tails twisted together, and it seems probable that they had been copulating. The larger snake, a 1469mm male, was sent to Barry Hughes at the University of Ghana. The smaller snake, a 1321 (809 + 512) mm female, was kept in captivity. Her weight at capture was 59.02g. During captivity, she fed freely on lizards, mostly *Hemidactylus brooki* and small *Agama agama*.

By mid-January, this female was noticeably gravid and weighed 81.4g on the 17th of January. On the morning of the 25th of January she began laying eggs. Between 7.10 a.m. and 8.30 a.m. two eggs were laid. A third was laid at 9.05 a.m., a fourth at 10.35 a.m., a fifth at 10.42 a.m. and a sixth at 12.20 p.m. The eggs were removed from the cage and numbered 1-6 (using an indelible crayon) in order of appearance. The first egg was irregular in shape, tapering sharply from a wide blunt end. The remaining five were regular in shape, being cylindrical with hemispherical ends. The dimensions of the eggs at oviposition are shown in Table 1, column 2. The weight of the female after oviposition was 38.7g. The eggs were placed on damp paper towels in a plastic jar and kept in the author's bedroom. The temperature in this room varied between $26 - 33^{\circ}C$.

On the 3rd of March, the eggs were noted to have increased in size. Their new dimensions (Table 1, column 3) and weights (Table 1, column 4) were noted.

Hatching occurred between 1st and 2nd April, 1980. The lengths and weights of the hatchlings (measured on the 12th of April) are shown in Table 1, columns 5 and 6 respectively. The young snakes were fed on small *Hemidactylus brooki*. All fed readily.

On 1st of May, 1980, hatchlings 1 - 3 were chloroformed, preserved and deposited in the University of Ghana collection. Their lengths and weights at death are shown in Table 2, columns 2 and 3. (Hatchling numbers correspond to egg numbers). Hatchlings 4 - 6 were released. The mother was released on the 10th July, 1980. Her weight at release was 58.0g.

TABLE 1

Egg number	Egg dimensions on 25th Jan 1980 (mm)	Egg dimensions on 3rd March 1980 (mm)	Egg weight on 3rd March 1980 (g)	Length of hatchling on 12th April 1980 (mm)	Weight of hatchling on 12th April 1980 (g)
1	400 x 151 (irregular)	412 x 153	0.52	187 (251 + 136)	4.24
2	365 x 135	378 x 137	0.05	198 (272 + 151)	4.7
3	383 x 135	382 x 137	0.04	376 (251 + 125)	4.6
4	361 x 135	364 x 135	0.00	402 (276 + 126)	4.8
5	402 x 135	403 x 136	0.02	345 (220 + 124)	4.8
6	325 x 135	325 x 132	0.00	395 (259 + 136)	4.5

TABLE 2

Hatchling number	Length on 1st May 1980 (mm)	Weight on 1st May 1980 (g)	Sex
1	402 (260 + 142)	4.64	Female
2	414 (269 + 145)	4.65	Male
3	400 (262 + 138)	4.71	Female

Acknowledgements

I would like to thank Anneka and Christoph Kessler, who looked after the eggs while I was in Upper Volta, Barry Hughes, of the Zoology Department, University of Ghana, for professional advice and Nicholas Harman for his assistance in the field.