

A PREY RECORD OF THE COMMON BROWN SNAKE *PSEUDONAJA TEXTILIS* FOR THE EASTERN BLUE-TONGUE *TILIQUA SCINCOIDES*.

By Raymond Hoser

INTRODUCTION:

The paper by Rob Valentic in this issue of *Monitor* details a case involving an adult Common (Eastern) Brown Snake *Pseudonaja textilis* feeding on a sub-adult Eastern Blue-tongue. Valentic's paper also cites other cases/references of predation by Brown Snakes on *Tiliqua* species. The following note shows that predation by one species on another is not necessarily a one-way street.

CASE NOTES:

An Eastern Blue-tongue from Greenwich, New South Wales (33° 51'S, 151° 2'E) was temporarily housed by myself in a four foot fish tank (with terrarium-style set-up) with a Common Brown Snake from Waterfall, New South Wales (34° 6'S, 151° 1'E). (Greenwich and Waterfall are both within Sydney region). Both reptiles measured about 30 cm in total length. The Brown Snake had been freshly caught, and was a typical Sydney specimen in that it was highly strung in nature and strongly banded; (see photos numbered 453-4 on page 170 of Hoser, (1989) for an example of similar looking *P. textilis* from the Sydney area). The Blue-tongue had been captive for some months. It's prior habits in captivity had been typical for the species.

About 30 minutes after the snake had been introduced into the tank I noticed the Blue-tongue had eaten all but the tail end of the snake, which it was still attempting to consume. Hastily I grabbed the lizard and forced it to regurgitate the snake. The snake was dead. It was in a mangled state and had clearly been extensively chewed with marks indicating such on the body. The dead snake was removed from the tank and preserved. The lizard showed no signs of envenomation and no bite marks were observed on it. The lizard never showed any ill effects from the incident.

The incident took place in 1973 when I resided at Lane Cove (a Sydney suburb). The time of year was November and it was in the late afternoon. The tank was indoors. No notes were taken at the time. At the time there were no licensing laws for the keeping and/or disposal of reptiles in New South Wales.

DISCUSSION:

Although the lizard did not show evidence of being bitten and I had not observed the initial predation of the snake by the lizard, I presumed that the snake did attempt to bite the lizard at the time. In terms of effects on the lizard it is possible that:-

- 1/ The snake failed to bite the lizard;
- 2/ The lizard's thick scales afforded protection against the snake's fangs, thereby preventing envenomation;
- 3/ The lizard did in fact have some sort of immunity to the snake's venom.

Reports in the Sydney media (uncited here) have suggested that the Eastern Blue-tongue may have some sort of immunity or resistance to the Funnel-web Spider *Atrax robustus* venom. This may also be true for the venom of the Common Brown Snake. In recent years it has become well-known and documented that snake venoms have widely varying effects on different species and classes of animal.

The effects of snake venoms on species such as the Eastern Blue-tongue should be investigated further.

In terms of the behaviour exhibited by the captive Blue-tongue (above), I suggest that similar behaviour may also occur in wild specimens, even though it may be a relatively rare occurrence. My own observations of *Tiliqua* and similar large skinks indicate that although they presumably do have dietary

preferences, they appear to be mainly opportunistic in feeding habits, eating any suitable food on offer. Captive *Tiliqua* held by myself have fed on canned dogfood, kangaroo meat (raw and cooked), roses picked from a local railway station and bananas. What was eaten simply reflected what was on offer. At no stage did I do comparative preference tests to see what was preferred, but such preferences would only be relevant to wild specimens in times of high food surplus. I doubt that such food surpluses are a common year-round occurrence in many areas, making an opportunistic feeding pattern for wild specimens most likely.

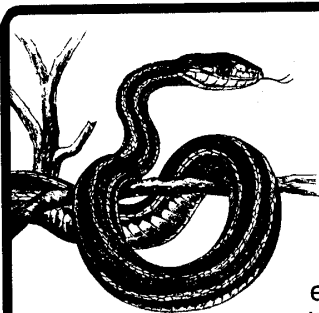
Therefore I believe that in the wild, at least some Blue-tongues may attempt to capture, subdue and eat snakes small enough to be consumed. Following completion of the first draft of this paper, Rob Valentic pointed out the omission of an important reference to feeding behaviour in Blue-tongues. That paper (Shea ed., 1982) documents captive Blue-tongues chasing, capturing and feeding on mice, frogs and small-skinks, indicating that the above case may not be as unusual or rare as some readers may think.

In reporting the above incident, I now pass on a

warning to other reptile keepers who may be considering mixing different species in a single enclosure, even if only on a temporary basis. In some cases this warning may apply to specimens of the same species (e.g. Green Pythons *Morelia viridis* and Desert Death Adders *Acanthophis pyrrhus* both of which are well known to exhibit cannibalistic tendencies as juveniles). In relation to the above reptile-husbandry "failure", my only excuse or justification for mixing clearly incompatible species was lack of experience at the time. Reporting of such failures is important in that it will hopefully help prevent others from making similar mistakes.

REFERENCES:

Hoser, R. T. (1989), *Australian Reptiles and Frogs*, Pierson and Co., Mosman, NSW, 238 pp.
Shea, G. (ed.) (1982), 'Observations on some members of the genus *Tiliqua* - by Australian Herpetological Society Members', *Herpetofauna* 13 (2), pp 18-20.
Valentic, R. (1996), 'A Prey Record of the Eastern Blue-tongue *Tiliqua scincoides* for the Common Brown Snake *Pseudonaja textilis*', *Monitor - Journal of the Victorian Herpetological Society*, 8(2):84.



SNAKES AND SNAKE HUNTING

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A PREY RECORD OF THE EASTERN BLUE-TONGUE *TILIQUA SCINCOIDES* FOR THE COMMON BROWN SNAKE *PSEUDONAJA TEXTILIS*

By Rob Valentic

INTRODUCTION:

Two species of the genus *Tiliqua* have been documented as prey items for *Pseudonaja textilis*; the Pygmy Blue-Tongue *T. adelaidensis* (Armstrong and Reid, 1992) and the Pink-Tongued skink *T. gerrardi* (Shine, 1989). Another skink of comparable size, the Shingleback *Trachydosaurus rugosus*, is also recorded as a prey item (Roberts and Mirtschin, 1991). The following field note is based on an adult *P. textilis* regurgitating an Eastern Blue-Tongue *T. scincoides*.

OBSERVATION:

Location: Merri Creek, Somerton, Victoria (37°36'S x 144°57'E).

Habitat: Basalt rock outcrop on gently sloping hill with a grassland overstory with a north-easterly aspect.

Date: 19 October 1985.

Time: 11:10hrs (Eastern Standard Time).

Weather Conditions: 17°C, strong southerly breeze, cloud cover 80% (approx.)

Notes: An adult male *P. textilis* was sighted basking adjacent to a large basalt boulder, retiring beneath this cover when disturbed. The snake was familiar to the author as it had been captured and subsequently measured for two consecutive years (on occasion basking in air temperatures as low as 14°C). Identification was facilitated due to partial tail loss. The rock was lifted and the specimen caught and measured (1320mm Total Length). Whilst in the process of measuring, the snake regurgitated an adult *T. scincoides*, free of any advanced signs of digestion. The *T. scincoides* was also measured (Snout-Vent length:265mm, Tail Length:110mm, Total Length:375mm) and the Brown Snake released.

DISCUSSION:

Large scincid lizards are not commonly recorded as prey items for *P. textilis* (Roberts and Mirtschin, 1991; Shine, 1989). Encounters

between the above two species is probably frequent, particularly in light of overlapping ranges, relative abundance of both and activity periods. The slow moving *T. scincoides* could be considered to be highly vulnerable to predation by *P. textilis*. I have also witnessed a large *P. textilis* in early February 1991 actively pursuing Cunningham's Skinks *Egernia cunninghami* on a rock scree on the Buckland River, north-east Victoria (36° 56'S x 146° 56'E). Referring to Shine (1989), perhaps the scarcity of large scincids in the diet of *P. textilis* is indicative of a highly effective threat display, acting as a deterrent on most occasions of interaction.

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Armstrong, G. and Reid, J. (1992). The rediscovery of the Adelaide Pygmy Bluetongue *Tiliqua adelaidensis*, (Peters, 1863). *Herpetofauna*. 22(2) : 3-6.

Roberts, J. and Mirtschin, P. (1991). An uncommon prey record for the Common Brown Snake *Pseudonaja textilis*. *Herpetofauna*. 21(1) : 36.

Shine, R. (1989). Constraints, Allometry and Adaption : Food habitats and Reproductive Biology of the Australian Brown Snakes (*Pseudonaja*:Elapidae). *Herpetologica* 45(2), 195-207.

