

***Varanus spenceri*: A Last Supper of Grasshoppers (Acrididae)**

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Abstract: The stomach of a road-killed *Varanus spenceri* contained many largely-intact grasshoppers, together with the well-digested remains of a lizard limb, and nematodes, *Abbreviata hastaspicula*.

Spencer's monitor, *Varanus spenceri*, is one of Australia's larger (ca. 1.2 m in total length), ground-dwelling varanid lizards that is found on the Mitchell grass plains of north-western Queensland and the Barkly Tableland in the Northern Territory (Wilson and Swan, 2008). The diets of Australian varanids are not well known, but they tend to swallow their prey whole or, in larger species, in pieces that can be readily identified, and they are capable of catching fast moving prey (Green and King, 1993). Based on an analysis of the stomach contents of preserved museum specimens of nine species (not including *V. spenceri*), James *et al.* (1992) found that most had generalized diets with lizards and orthopterans being the most common prey items, but a variety of other invertebrates were also taken.

Only three reports were found on prey taken by *V. spenceri* and it appears that this species feeds on a broad range of prey items including invertebrates, reptiles, and mammals. Pengilley (1981) found isopods, grasshoppers, reptiles (including single records of an unidentified agamid and an elapid snake, *Pseudonaja ingrami*) and unidentified mammals (probably *Rattus villosissimus*) in the stomachs of eight specimens collected on the Barkly Tableland from September to October, 1976. Valentic and Turner (1997) found three lizards (two *Ctenotus joanae* and one *Tympanocryptis tetraporophora*), and "a large roach (blattodea, approx. 30 mm long) too large

to have been secondarily ingested" in the stomach of a *V. spenceri* found injured on the Barkly Highway in the Northern Territory, 32 km west of the border with Queensland, in October 1996. Jackson and Lemm (2009) identified the tail of an agamid lizard, *Pogona henrylawsoni*, in the stomach of a road-killed *V. spenceri* found on the Landsborough Highway, 110 km south of Winton, Queensland in October 2008.

A fresh road-killed *V. spenceri* was collected near Waterloo Plains (20°57'S; 141°43'E), approximately 33 km south of the town of Julia Creek, Queensland on 22 April 1995. The stomach contained a large number of mostly intact, undigested grasshoppers (Acrididae) as well as the well-digested remains of part of a limb of a small lizard and numerous large nematodes. The appearance of the acridids suggested that they were the last food eaten before the death of the monitor. The acridids, 47 in all, comprised one male Spur-throated locust (*Austracris guttulosa* [Walker]), four male and 11 female Leaping Lagoonia (*Lagoonia* sp. 1) and 13 male and 18 female Speckled Yrrhapta (*Yrrhapta striata* Sjöstedt). *Austracris guttulosa* and *Y. striata* are fully-winged species whereas *Lagoonia* sp. 1 is brachypterous, but known to be a powerful jumper. Rentz *et al.* (2003) give details of size and seasonal occurrence for these grasshoppers.

About 106 nematodes, all *Abbreviata hastaspicula*,

were extracted from the stomach. This is the most common species of *Abbreviata* in the drier inland of Australia, principally in larger species of *Varanus* such as *V. gouldii*, *V. panoptes* and *V. spenceri* (H. Jones, pers. comm.).

These observations and those made by others on the stomach contents of *V. spenceri* indicate that this species, like the nine other varanids studied by James *et al.* (1992), has a generalized diet.

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