



VARANUS VARIUS (Lace Monitor, Common Goanna): DIET. Reports of diets in the large eastern Australian lizard *Varanus varius* (White, ex Shaw ms., 1790) (Reptilia: Sauria: Varanidae) are of carnivory on a wide array of endemic and exotic mammals, birds, and reptiles, and scavenging of carcasses (e.g. Mansergh & Huxley, 1985; Weavers, 1989; Crew & Sadler, 1997; Cogger, 2000; Guarino, 2001; Jessop et al., 2010), principally by day. However there is a recent report of predation on a large active arboreal mammal prey item (brush-tail possum, *Trichosurus vulpecula*) at night (Metcalf & Richards, 2009). This note reports a case of apparent frugivory in *V. varius*.

On 5 April 2006, ~0830 h (Australian Eastern Standard Time), a small ~1 m total length *V. varius* was observed by the second author for ~2 minutes consuming partially rotted exotic pumpkin (*Cucurbita maxima*, 'Queensland Blue' cultivar, Cucurbitaceae) in the household compost heap (resident family all vegetarians) adjacent to the northeast edge of the buildings platform on the eastern aspect near the top of a coastal hill at "Avocado Heights", a fruit-growing property near Emerald Beach, north of Coffs Harbour, New South Wales (NSW), Australia, at 30°09'52.45"S 153°09'31.68"E (WGS84 grid), ~63 m elevation. It is possible the lizard was consuming insects and their larvae in or around the pumpkin, since unidentified larval Coleoptera, Diptera, and Lepidoptera, as well as unidentified adult Mantodea, Orthoptera, and spiders (Arachnida: Aranea) have been reported as inclusions in diets of wild adult *V. varius* (Weavers, 1989; Jessop et al., 2010). However inspection of the remaining pumpkin did not reveal adult insects or larvae, and soft partially rotted pumpkin flesh was the only intake observed, taken in some quantity prior to the approach of the observer to within 10 m, when the lizard fled from view; it is possible the pumpkin may have served as a source of moisture for the lizard but also considered unlikely as several sources of free-standing freshwater were locally available in near-vicinity of observations.

The first author observed several large adult

V. varius scavenging on barbeque scraps left by a large crowd of campers and visitors at Gingham Swamp in the Macquarie Marshes Nature Reserve, NSW, 5 September 1993, ~1030 h, and one subject avidly consumed 7-8 items of the savoury cheese-flavoured packaged dry 'food' product 'Twisties'TM, which is largely highly processed corn starch carbohydrate, although in this case it is possible that the high salt content was an attraction. Two pieces of pizza left outside a tent in a camping ground at Station Creek in Yuraygir National Park ~60 km north of Coffs Harbour, NSW, were taken and consumed by an adult *V. varius* in the summer of 2005-2006 (M. Thandi and T. Topfer, pers. comm.), probably initially attracted by meat among the topping. It would therefore appear that *V. varius* will occasionally deliberately consume some plant materials. In the case of the flesh of rotten fruit it is unlikely to be detected by visual inspection of faecal samples, examination of gut contents of dissected specimens, or in stomach flushes. However if seeds (such as those of pumpkin) were ingested, they would be expected to be observed in scats and dissected gut contents; further investigation via observation of wild subjects is required to confirm if frugivory in this species is more widespread. Bennett (2002) reported seeds of *Azadirachta indica* (Meliaceae) in the stomachs of adults of the African cogenor *V. niloticus* from the Black Volta River, Ghana. Otherwise, the only hitherto reported frugivory in the typically obligate carnivorous/scavenging Varanidae is for the three members of the *Varanus olivaceus* species-group of the Philippines, *V. bitatawa*, *V. mabitang*, and *V. olivaceus*, which feed in the wild extensively, near exclusively on ripe fruit, although molluscs and crustaceans are occasionally consumed, indicating omnivory (e. g. Auffenburg, 1988; Bennett, 2011; Gaulke, 2010; Welton et al., 2010).

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