

## NATURAL HISTORY NOTES

**VARANUS NILOTICUS (Nile Monitor): CAPTIVE ADULT FEEDING ON ANTS.** In May 1993, a five-foot (total length) male Nile Monitor was donated to one of the authors (BP) at his home in Las Vegas, Nevada. The lizard was given a screened out-door enclosure (3.3 m (length) x 1.5 m (width) x 2 m (high), with a pool to bathe in, and wooden logs to climb upon.

Almost at once, this animal began to dig a nine-foot deep burrow among the roots of a fig tree (*Ficus moraceae*) growing just outside and adjacent to the enclosure's screen fence. During the first week of August 1993, the ambient air temperature was excessive (for humans), reaching 38°C (100°F) by 09:00 hrs! By 12:00, the temperature had reached 41.6°C (107°F). This 'aquatic' varanid was observed basking in direct sunlight with no outward discomfort (i.e. panting, lying in shade or burrow). The Nile Monitor appears to tolerate arid regions where permanent water sources are present in the Sahara desert, or in captivity (Cloudsley-Thompson, 1967, 1969).

In this same yard where the Nile Monitor resided was another enclosure with six Savanna Monitors (*V. exanthematicus*). These lizards would retreat into their ten-foot deep burrows (see Bayless, 1994 for burrow discussions) when the ambient temperature reached 36°C (95°F). Physiological tolerances of ambient temperature between the 'aquatic' Nile Monitor and grassland-inhabiting Savanna Monitor seem apparent.

During the week of 9<sup>th</sup> August 1993, fruit began to drop from branches of the fig tree overhanging the Nile Monitor's enclosure. The lizard paid no attention to the falling figs, or those that lay scattered about on the ground, but the ants certainly did! The ants were probably Texas Carpenter Ants (*Camponotus festinatus*), or perhaps the Arid Land Honey Ants (*Myrmecocystus* sp.). The ant bivouac laid siege to the fallen figs, taking this sweet nectar back to their subterranean lair. During this same week, the monitor was observed lapping up the ants with its long blue tongue, much as an anteater (*Myrmecophagidae* sp.) does. The lizard lapped up the swarming ants for several minutes. After ten minutes had elapsed, the ants became too numerous for the lizard to tolerate, as by now they

were crawling all over its body, especially about the head and face region. The animal dashed into the nearby pool, completely submerging itself beneath the water, cleansing itself of the marauding ants. The lizard then emerged from the pool when it was apparently satisfied that the ants had all fallen away from its body and drowned.

Dr. Robert Mertens (1894-1975) wrote the most comprehensive treatise on the monitor lizards, Family Varanidae, in 1942. In this treatise he speculated that the Roughneck Monitor, *V. rudicollis* might use its tongue in a similar ant-feeding (and termite) manner as seen for this captive Nile Monitor in the middle of the North American southwestern Nevada desert in 1993; this behaviour in a Nile Monitor confirms what Dr. Mertens' only speculated upon in 1942: that varanids do use efficient feeding strategies to manipulate their environment to their advantage, among them a tongue-collecting technique for gathering these formic-acid bearing insects.

Monitor lizards maintained in semi-natural outdoor enclosures no doubt enhances or brings to bear natural behaviours not often, if ever, seen in in-door, sometimes cramped terraria. The more varied behaviour a captive animal displays, the prospects for its enrichment and a healthier life while in captivity improve (see Stanner & Mendelsohn, 1999).

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