

## A Case of Arboreality in an Adult Water Monitor (*Varanus salvator macromaculatus*)

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**Abstract** – During a brief observation in Lumpini Park in Bangkok, Thailand a ca. 170 cm long (total length) adult water monitor (*Varanus salvator macromaculatus*) was observed descending head-first down the trunk of a portia tree (*Thespesta populnea*). During the descent the monitor encircled its tail around ca. ½ of the tree’s circumference. Encircling the tail around the trunk was presumed to be useful to the monitor in two ways: 1) securing its body tightly to the trunk, thus preventing it from falling to the ground, and 2) slowing down the speed of descent, in which case the tail might have functioned as a friction pad.

### Introduction

It is well known that the largest *Varanus* species, *i.e.*, *V. komodoensis* and *V. salvator* undergo changes in their lifestyles through ontogeny – the juveniles are mainly arboreal and the large adults are obligately terrestrial, as well as aquatic (*e.g.*, Auffenberg, 1981; Gaulke & Horn, 2004). Subadults are both arboreal and terrestrial. I describe here a case of arboreality in a large adult *V. salvator macromaculatus*.

### Observation and Conclusions

The observation was made in Lumpini Park, a fenced 58 ha public park located in the heart of Bangkok, Thailand. The park includes several ponds and canals, as well as sporting and recreational facilities. The park is open to the public during the daytime hours and is usually teeming with people engaged in jogging and other sporting and recreational activities. Lumpini Park is well known world-wide for its dense population of *V. salvator macromaculatus* that are habituated to humans, and thus are easily observed and studied. More details on *V. salvator macromaculatus* in Lumpini Park can be found elsewhere (*e.g.*, Stanner, 2010; Cota, 2011).

At 1155 h on 24 January 2017, I observed a large *V. salvator*, measuring ca. 170 cm in total length (TL; estimated from a distance of ca. 5 m) descending head-first down the trunk of a portia tree (*Thespesta populnea*). The tree was located ca. 3 m from the edge of a pond.

The trunk slanted approximately 60 ° and had a diameter of ca. 41 cm and circumference of 128 cm at a height of around 2 m. As the monitor descended down the trunk it encircled its tail around ca. ½ of the tree’s circumference. On reaching a height of about half a meter, it detached itself from the trunk, leapt to the ground, ran to the pond, and disappeared into the water. The whole observation lasted 2–3 sec. Due to the briefness of the observation I was unable to photograph the event. Looking up the tree, I saw no evidence of prey or any other incentive that might have motivated the monitor to climb the tree, though that does not mean that such incentive might have existed beforehand. During previous observations of *V. salvator* in Lumpini Park, I have tried to approach juveniles and sub-adults (TL < 90 cm). In most cases,



Fig.1. Portia tree trunk (*Thespesta populnea*) in Lumpini Park, Bangkok. Scale: 15 cm blue and white pen.

the monitors escaped by climbing up trees that grew close to the water's edge; in other cases they escaped by diving into the pond. Hence, juveniles and sub-adults may feel more secure climbing up trees than swimming or diving in the water where they might be vulnerable to attacks or preyed upon by larger conspecifics.

Encircling the tail around the tree-trunk might have been useful for the monitor by 1) securing its body tightly to the trunk, thus preventing it from falling to the ground, and 2) slowing down the speed of the descent, in which case the tail might have functioned as a friction pad. It is noteworthy that the bark of the Portia tree is rough (Fig. 1) and thus might facilitate ascent and descent of monitors along the trunk.

## References

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