A REDescription of the Ba Vi Water Skink
Tropidophorus baviensis BOURRET, 1939

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Tropidophorus baviensis was described from Ba Vi, Vietnam by René Bourret in 1939 based on one specimen. We collected a series of thirty one animals (Fig. 1) from the same location (Fig. 2) and provide a redescription of T. baviensis discussing the extent of morphological variation in this series. The holotype falls within the variation observed in our sample. All specimens were found in a road cut away from water. Interestingly, the females, of this species appear to invest parental care in their offspring, as all juveniles were accompanied by an adult female.

Key words: Scincidae, Tropidophorus, Vietnam.

INTRODUCTION

The Ba Vi water skink, Tropidophorus baviensis Bourret, 1939, was described and illustrated from only a single specimen deposited at the Musée National d’Histoire Naturelle in Paris (MNHN 1948.63). “Dr. André” sent the adult male holotype from the Son-Tay Province (Tonkin). Subsequently, a juvenile was reported, but not described except for snout-vent length (SVL), tail length (TL), and total length (TL) (Bourret, 1941). More recently, Darevsky and Nguyên (1983) collected a specimen from nearby Cuc Phuong National Park, extending the known range of this endemic species in northern Vietnam. Their description was short, describing only three characters which matched the holotype: smooth head scales, smooth dorsal scales, and number of scales bordering the parietals. However, the Cuc Phong group appears to have 30 scales around the middle of the body, as opposed to 28 in the holotype. In 1994 we collected a relatively large series from Ba Vi National Park, the type locality. Owing to the brevity of the original description, and because of this new collection, the following redescription and ecological notes are given.

REDESCRIPTION WITH A DISCUSSION OF MORPHOLOGICAL VARIATION


Type locality. Bavi Mount, 400 m altitude, Son Tay (Tonkin) [= Ba Vi Mountain and National Park, Ha Tay Province, Vietnam, 21°04′20″N, 105°21′31″E].

Type specimen. Holotype MNHN 1948.63 (2655.1) [Musée National d’Histoire Naturelle in Paris]; by monotypy.

All measurements were taken to the nearest 1mm using dial calipers. Among 31 individuals examined, 23 were adults and 8 were juveniles, 6 were males. Terminology and abbreviations follow Peters (1964).

Major head scales smooth, not striated. Rostral two times as wide as high, bordered posteriorly by a single large frontonasal. No internasals or supranasals. Two prefrontals; wider anteriorly; in contact with each other for approximately one third their length; enclosing the frontonasal posteriorly. Laterally they are in contact with one postnasal, one loreal, and one supraocular; posteriorly they border the frontals. The frontal is wider anteriorly than posteriorly. At its widest the frontal is as wide as the widest supraocular, and longer than distance to snout. Four

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supraoculars. Frontoparietals slightly larger than prefrontals; in broad contact with each other medially; bordering frontal anteriorly, interparietal and parietals posteriorly, and first three supraoculars laterally. Interparietal narrow, much longer than wide, sides converging posteriorly; not enclosed posteriorly by parietals. Parietals large, in contact with interparietal, frontoparietal, fourth supraocular, last supraciliary, and nuchal scales.

Nostril in single nasal. Nasals separated medially by rostral, followed by a single postnasal and two slightly rugose loreals. The anterior loreal being larger, and in some individuals is divided into two superposed scales, the inferior being considerably smaller than the other.

This difference is possibly due to ontogenetic variation, as only three adult animals (Royal Ontario Museum, Toronto, Canada, ROM 25545, 25561, 25552) of the thirty-one had neither anterior loreal divided. Three other adult animals had either one anterior loreal divided and one not (ROM 25540, 25559), or one anterior loreal divided on one side and an incompletely divided one on the other (ROM 25551). The remaining eight animals were juveniles. Six with neither loreal divided, one specimen (ROM 25565) with one loreal partially divided and one undivided, and one larger juvenile (ROM 25546) with both loreals partially divided.

Seven supraciliaries, nine ciliaries, six supralabials, the fourth largest, serving as medial subocular with a distinct diagonal groove from the lower posterior corner to the upper anterior one.

Tympanum nearly round. Three to four rows of temporal scales.

Labial border of mental considerably longer than labial border of rostral; bordered posteriorly by postmental and laterally by infralabials. Six infralabials. Three pairs of chinshields, with only the first pair in contact, the second pair separated my a small azygous scale, and the third widely separated by smaller semi-cycloid gular scales.

Dorsal body scales slightly smaller than ventrals, arranged in 8 longitudinal rows, semi-cycloid, imbricate, not keeled to slightly keeled with the exception of the lateral two rows on each side bordering the flanks, which were strongly keeled, forming distinct
ridges along the back. Flank scales arranged in 6 or 7 longitudinal rows, directed straight backwards; strongly keeled and strongly mucronate, becoming pyramidal in the lateral nuchal region, giving it a feathered appearance. Ventral scales arranged in 8 longitudinal rows, 48 transverse rows from posterior border of second chinshields to preanals, smooth, cycloid, imbricate, not mucronate or denticulate. These counts display a range of 28 to 30 scales around the midbody, agreeing with both Bourret (1939) and Darevsky and Nguyên (1983). Two enlarged preanal scales. Dorsal caudal scales strongly keeled, strongly mucronate. Ventral caudal scales enlarged to form a series of 49 – 69 distinct subcaudals extending to the tail tip, the first through third of which may be divided. In juveniles and some adults the posterior subcaudal scales may be weakly bicornate.

Forelimb pentadactyl. Infra and suprabrachials mucronate, strongly imbricate; supra-antebrachials strongly mucronate, imbricate. Infra-antebrachials mucronate and imbricate. Supracarpals smooth, flattened, semi-cycloid; infracarpals small juxtaposed flattened tubercles. Subdigital lamellae smooth, numbering 18 – 22 on the fourth digit of the pes, with 21 lamellae being the most common state, as opposed to 19 in the original description.

Hindlimb pentadactyl. Suprafemorals strongly mucronate to pyramidal; infrafemorals smooth, flattened, semi-cycloid, imbricate. Supratibials strongly mucronate to pyramidal, upturned; infratibials smooth, imbricate. Supratarsals mucronate, imbricate; infratarsals small juxtaposed flattened tubercles. Subdigital lamellae smooth, keeled.

Body strongly dorso-ventrally depressed, rectangular in cross-section, approximately twice as wide as deep. Snout-vent length roughly half of total length, though only eight specimens were available with unbroken non-regenerated tails, and all of these were juveniles (ROM 25546 – 25549, 25563 – 25566). Adult SVL between 80 and 91 mm. Adult TL 68 – 94 mm, though no adult specimens were obtained with entire non-regenerated tails. Head distinct and swollen at the temples. Head width at the widest portion of the head is nearly equal to the head length as measured from the tip of the rostral to the posterior border of the interparietal. Limbs strong. Limb length varied with SVL. Hind limb reached the elbow of the forearm when adpressed in most individuals with an SVL under 70 mm, whereas it reached no further than the wrist, if at all, in larger individuals. Axilla-groin distance approximately half SVL.

**COLOR IN ALCOHOL**

Specimens were dark brown dorsally with cream markings forming irregular broken bands appearing as spots or splotches on juveniles. Venter cream with some darker flecking on the underside of the tail and on the infralabials. Flanks are predominantly dark brown, but with extensive lighter markings, and the ventral most row is cream. The heads are a uniform dark brown. The regenerated tails were generally darker, though some specimens showed either normal coloration (brown with cream markings) or had the last 1 – 1.5 cm of the tail a uniform cream color.

**ECOLOGICAL NOTES**

Most species of *Tropidophorus* are found in or near streams (Smith, 1923). However, this series, collected in October, was obtained from the banks of a road cut about 50 m from the nearest stream. Unlike *Tropidophorus thai*, which has also been taken some
distance from water (Taylor, 1963), these animals were not foraging, but rather were found in burrows dug into the banks of the road cut. Interestingly, no solitary juvenile specimens were found, but rather a single adult female accompanied one or two juveniles in a burrow. Although they were relatively abundant in October, when one of us (Orlov) returned to the site during the start of the wet season three years later, none could be found. These notes suggest the likelihood of maternal care, and the discovery of dry over-wintering sites, both of which are unknown in the genus.

SPECIMENS EXAMINED


REFERENCES


