

A NEW SPECIES OF *DIBAMUS* (SQUAMATA: DIBAMIDAE) FROM THAILAND

Masanao Honda, Jarujin Nabhitabhata, Hidetoshi Ota and Tsutomu Hikida

ABSTRACT. - A new dibamid lizard, *Dibamus somsaki*, is described from eastern Thailand. This species most closely resembles *D. montanus* in having complete rostral sutures joining to form a single median suture. However, *D. somsaki* differs from *D. montanus* in having fewer midbody scale rows, fewer scales bordering the posterior edge of the first infralabial, and more subcaudals.

KEY WORDS. - New species, *Dibamus*, Squamata, Dibamidae, Thailand

INTRODUCTION

The genus *Dibamus* is distributed in Southeast Asia, the Indo-Australian Archipelago, and the Philippine Islands. Greer (1985) revised the genus taxonomically and recognized nine species. Since then, two additional species have been described from Vietnam and Hong Kong (Darevsky, 1992), bringing the total number of species to 11. Most of these species are known from fewer than 20 specimens.

In 1995, we collected four specimens of *Dibamus* in the eastern montane region of Thailand. These specimens constitute the first record of the genus from the mainland part of Thailand. In the mainland part of Southeast Asia, the distribution of the genus *Dibamus* consists of two isolated areas: the Malay Peninsula and the Vietnam - southern China region (e.g., De Rooij, 1915; Taylor, 1962; Greer, 1985; Liu & Hu, 1962; Darevsky, 1992). The discovery of *Dibamus* from the mainland part of Thailand fills this broad intervening geographical gap.

Comparisons of morphometric and meristic characters revealed that these specimens differ from all recognized species of the genus. We thus describe a new species on the basis of these specimens.

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MATERIALS AND METHODS

Two males and two females were examined after fixation in 10% formalin and preservation in 70% ethanol. They were deposited in the herpetological collections of National Science Museum (TNSM), Department of Biology, Chulalongkorn University (CUB(R)), and Department of Zoology, Kyoto University (KUZ). Measurements were taken to nearest 0.1 mm with dial calipers for snout-vent length and tail length, and with an ocular micrometer attached to the stereomicroscope for leg length and scale width. Skeletal characters were investigated via radiography using the autoradiography (Softex, Softex Co.). Terminology follows Greer (1985).

TAXONOMY

Dibamus somsaki, new species

(Fig. 1)

Material examined. - Holotype: TNSM 52-001, juvenile male, Khao Soi Dao National Park, Chanthaburi, Thailand (13° 1'N, 102° 2'E, alt 300m; Fig. 2), coll. J. Nabhitabhata, 23 Dec.1995.

Paratypes. - One juvenile male (KUZ 35531), same locality as the holotype on 22 Dec.1995 by J. Nabhitabhata; two females, one adult (KUZ 35567) and one juvenile (CUB(R) 1995-12-23-01), same locality and date as the holotype, the former by J. Nabhitabhata and the latter by M. Matsui.

Diagnosis. - Differs from all other species of *Dibamus* in the following combination of characters: rostral sutures complete but joining to form a single median suture just above the tip of snout; nasal and labial sutures complete; scales bordering posterior edge of first infralabial two or three; postocular 1; midbody scale rows 18-19; subcaudals 57-59.

Description of holotype. - Snout-vent length 57.2 mm; tail length 13.1 mm; hindlimb length 1.4 mm; body diameter 1.5 mm. Snout bluntly rounded; nostril lateral; rostral pad with a large number of evenly distributed sensory papillae; rostral sutures complete, and joining to form a single median suture just above the tip of snout; nasal sutures complete, from nostril to ocular; labial sutures complete, from anterior part of nasal suture to mouth; posterior border of rostral forming an obtuse entrant angle; frontal approximately 1.15 wider than frontonasal; interparietal posteriorly bordered by four slightly smaller nuchal scales; postocular one; supralabial one; scales bordering posterior edge of first infralabial, two on right, three on left; no ear opening; eyes dimly visible through ocular; body scales smooth, subcycloid, or subhexagonal, equal-sized except near preanal region; transverse scale rows, 21 just posterior to head; 19 at midbody; 18 at just anterior to vent; subcaudals 58; presacral vertebrae 119; postsacral vertebrae 31; tip of tail blunt, not ending in a spine; legs vestigial, flattened on ventral surface; a pair of enlarged scales in preanal region. We could not confirm the presence of preanal pores, since the specimen is juvenile.

Variation. - Variations in morphometric and meristic characters of the holotype and paratypes of *D. somsaki* are presented in Table 1. Paratypes are similar to the holotype in general morphology and coloration, but differ slightly from the latter as follows. Two females completely lack hindlimbs, whereas the male paratype has vestigial limbs similar to those of the holotype. Two paratypes (KUZ 35531, CUB(R) 1995-12-23-01) have a partially regenerated tail. KUZ 35567 is largest in size, with coloration slightly darker than the others. This specimen is the only adult in the type series, but lacks preanal pores like the others.

Color in life. - Both dorsum and venter of body, tail and male hindlimbs uniformly purplish brown; tip of snout and lower jaw slightly lighter.

Color in ethanol. - Ground color fading to paler; numerous white dots on each sensory papilla of rostral pad; remaining color pattern similar to that in life.

Etymology. - The specific epithet, *somsaki*, noun in genitive case, is derived from the first name of Dr. Somsak Panha, Chulalongkorn University, honoring his great contribution to the progress in zoological researches in Thailand.

Distribution. - This species is only known from the type locality, Khao Soi Dao National Park, in eastern Thailand.

Natural history. - All specimens were dug out in the secondary forest near a trail during the day. The holotype was found under the ground covered with the duff and humus below a rotten log. The others were found in the humus covered with loose litter within two meters of a root near the bank of a stream. The male paratype and one of the female paratypes (KUZ 35567) were found near the same tree.

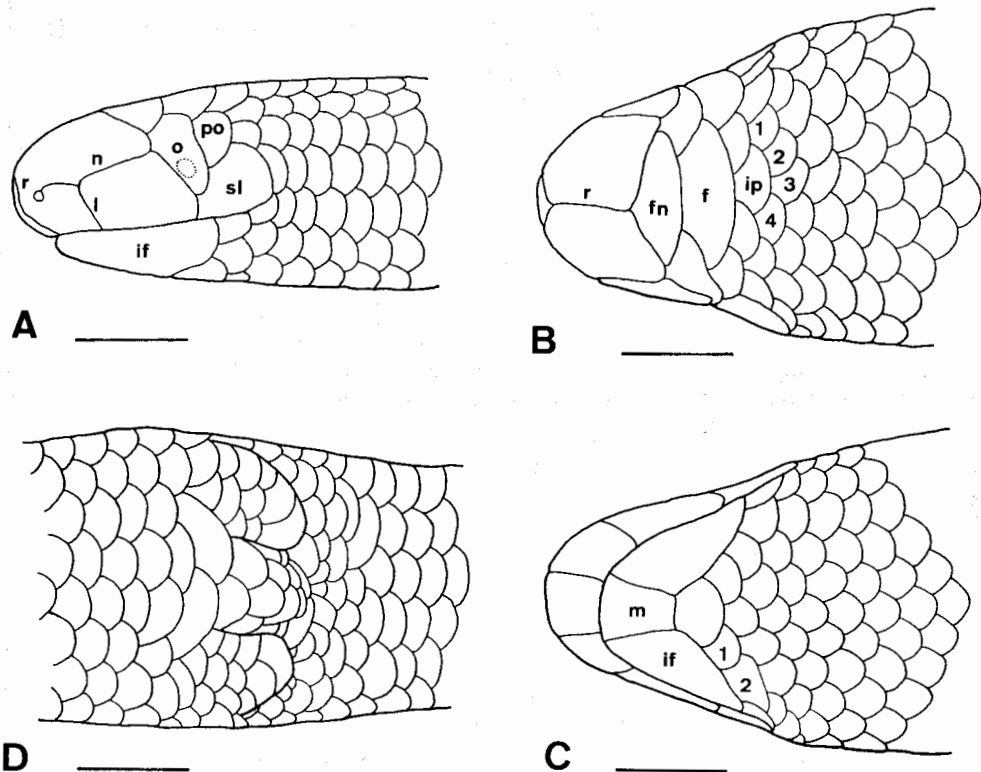


Fig. 1 (A) Lateral, (B) dorsal, (C) ventral view of head, and (D) ventral view of anal region of the holotype (CUB(R) 1995-12-23-01) of *Dibamus somsaki*, new species. Bars equal 1.0 mm. (f: frontal, fn: frontonasal, ip: interparietal, if: first infralabial, l: labial suture, m: mental, n: nasal suture, o: ocular, po: postocular, r: rostral suture, sl: supralabial).

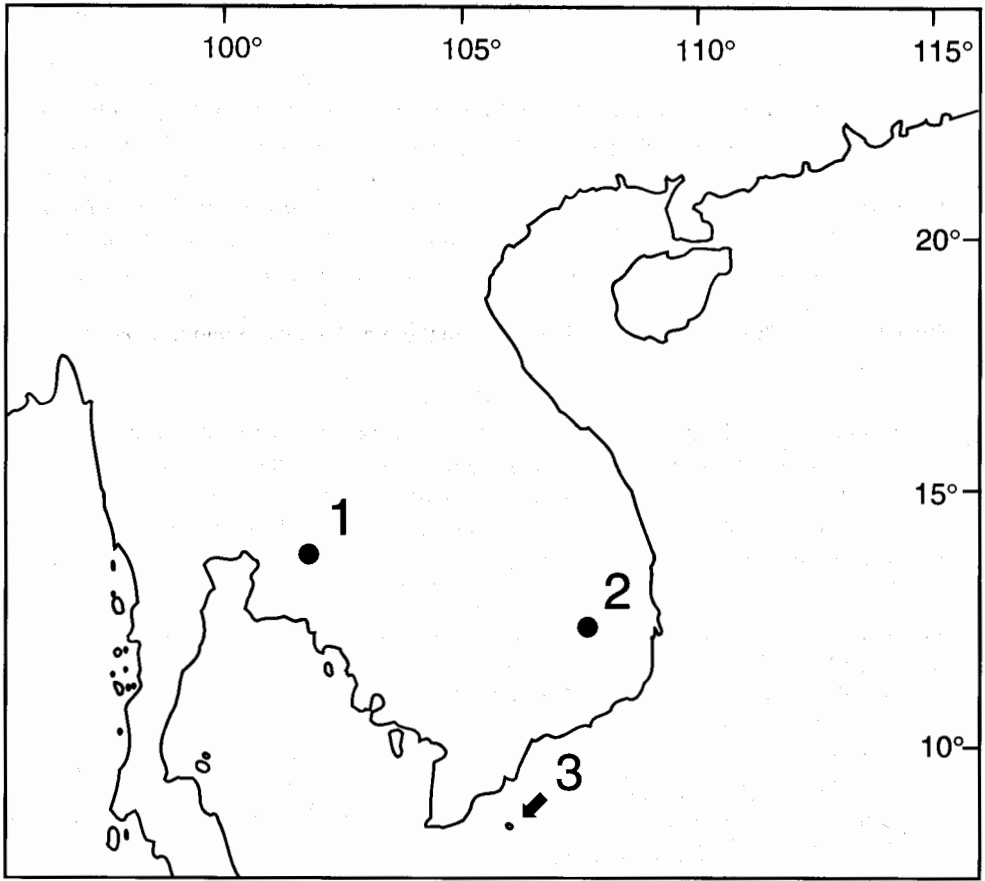


Fig. 2. A map of Southeast Asia, showing the type localities of *Dibamus somsaki* (1, Khao Soi Dao National Park), *D. montanus* (2, Le Bosquet), and the locality of *D. montanus* listed by Darevsky (1992) (3, Kondao Island).

Comparisons. - *Dibamus somsaki* differs from all other congeneric species except *D. montanus* in having complete rostral sutures that join to form a single median suture just above the tip of snout. *Dibamus somsaki* closely resembles mainland populations of *D. montanus* in having complete rostral sutures joining to form a single median suture, from which it, however, differs in having a smaller number of midbody scales (18-19 vs 22 in *D. montanus*: Greer, 1985), smaller relative size of frontal to frontonasal (1.13-1.27 vs 2.0), larger numbers of presacral and postsacral vertebrae (117-120 and 30-31 vs 112-114 and 24-27, respectively) and subcaudals (57-58 vs 43-49), and a longer tail relative to snout to vent length (23.7-24.0 vs 15-18) (Table 1).

Dibamus montanus was known only from Langbian Plateau, central Vietnam until Darevsky (1992) listed *D. montanus* from Kondao Island, Vietnam. However we believe that the Kondao population may belong to undescribed species, because the Kondao specimen differs from *D. montanus* in having a smaller number of scales bordering the posterior edge of first infralabial (2 vs 3 in *D. montanus*: Greer, 1985), and a larger number of presacral vertebrae (137 vs 112-114 in *D. montanus*: Greer, 1985). It also differs from other species of *Dibamus* in having a larger number of postoculars (4 vs 1 in both *D. montanus*: Greer, 1985 and *D. somsaki*: this study).

Table 1. Comparison of several characters in the holotype and paratypes of *Dibamus somsaki*, specimens of *D. montanus* from type locality and a specimen of *D. montanus* from Kondao Island. The width of the frontal is measured relative to the frontonasal and the interparietal relative to the surrounding anterior body scale. Data source are ⁽¹⁾ this study; ⁽²⁾ Greer, 1985; ⁽³⁾ Darevsky 1992.

Species	<i>somsaki</i> ¹				<i>montanus</i> ²		Kondao ³
	Male		Female		Male	Female	Male
	TNSM 52-001	KUZ 35531	KUZ 35567	CUB(R) 1995-12-23-01			ZIL 20017
Snout-vent length (mm)	57.2	58.0	106.6	58.1	130 ^a	130 ^a	111
Tail length (mm)	13.7	10.7	25.3	10.7	-	-	23
Tail length ratio to snout-vent length (%)	24.0	18.4 ⁺	23.7	18.4 ⁺	15-18	15-18	20.7
Midbody scale rows	19	19	18	18	22	22	22
Subcaudal scales	58	44 ⁺	57	27 ⁺	49	43	59
Postoculars	1	1	1	1	1	1	4
Scales on posterior edges of infralabial	2-3 ^b	2-2 ^b	2-2 ^b	2-2 ^b	3	3	2
Relative width of frontal	1.15	1.13	1.25	1.27	2.0	2.0	-
Relative width of interparietal	1.20	1.00	1.21	2.16	2.2	2.2	-
Presacral vertebrae	119	117	120	120	112	114	137
Postsacral vertebrae	31	24 ⁺	30	15 ⁺	27	24	36

+ Regenerated tail.

^a Maximum snout-vent length. ^b Right side-left side.

ACKNOWLEDGMENTS

We thank A. E. Greer for information on the type material of *D. montanus* and for reviewing the manuscript, and S. Panha, T. Chan-Ard, K. Araya, A. Mori and M. Matusi for providing us with help and encouragement. Radiographs were made through the courtesy of T. Nakabo.

Honda, Ota and Hikida are especially grateful to M. Matsui for providing an opportunity of visiting Thailand, and also for providing one of the specimens of the present species he collected. Our research was carried out under the permission of National Research Council of Thailand (NRCT), and the financial support by a Monbusho International Scientific Program, Field Research No. 06041066 (project leader: M. Matsui).

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Received 21 Feb 1997
Accepted 10 Aug 1997