

**ON THE STATUS OF *Boiga ocellata* KROON, 1973,
WITH THE DESIGNATION OF A NEOTYPE FOR *Boiga siamensis*
NOOTPAND, 1971 (SERPENTES, COLUBRIDAE)**

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The nominal species *Boiga ocellata* Kroon, 1973 is shown to be a junior synonym of *Boiga siamensis* Nootpand, 1971, an overlooked taxon, which has priority. The low number of citations of *Boiga ocellata* in the literature falls within the recommendations of the *International Code of Zoological Nomenclature* to not threaten the Principle of Stability. The types of *Boiga siamensis* being lost, we designate the holotype of *Boiga ocellata* as neotype of *Boiga siamensis*.

Keywords: Reptilia, Colubridae, *Boiga ocellata*, *Boiga siamensis*, synonymy, neotype, Thailand.

In memory of the late Group Captain Wirot Nutphand (1932 – 2005), a pioneer in Thai herpetology.

Asian species of the genus *Boiga* morphologically related to *Boiga cynodon* are in need of revision (Orlov and Ryabov, 2002). In the frame of our systematic studies on the Thai members of this genus, we came across the description of an overlooked taxon, *Boiga siamensis*, described from Thailand by Nootpand (1971; Nootpand was an early transliteration for the author's name now better known as Nutphand) in a poorly distributed monograph on the venomous snakes of this country. Subsequently, Kroon (1973) described *Boiga ocellata*, also from Thailand. In the present paper, we compare both taxa on the basis of published descriptions and of pre-

served specimens. As the types of *Boiga siamensis* are definitely lost, we here select a neotype in order to fix the taxonomy and nomenclature of this taxon.

Institutions abbreviations. CUMZ(R), Chulalongkorn University Museum of Zoology (Reptiles), Bangkok, Thailand; FMNH, Field Museum of Natural History, Chicago, USA; IRSNB, Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium; MNHN, Muséum National d'Histoire Naturelle, Paris, France; PSGV, Gernot Vogel's private collection, Heidelberg, Germany; PWBS, Phang-Nga Wildlife Breeding Station, Phang-Nga, Thailand; QSMI, Queen Saovabha Memorial Institute, Thai Red Cross Society, Bangkok, Thailand; SERS, Sakaerat Environmental Research Station, Sakaerat, Thailand; THNHM, Thai Natural History Museum, National Science Museum, Pathumthani, Thailand.

RESULTS

Description of *Boiga siamensis* Nootpand, 1971

Nootpand (1971) described and depicted a species of *Boiga* under the combination *Boiga cynodon siamensis* (p. 60) or the binomen *Boiga siamensis* [pp. 61 (Table) and 64 (Figure)]. According to the *International Code of Zoological Nomenclature* (ICZN, 1999; cited below as the *Code*), Art. 24.2.2, we here act as First Re-

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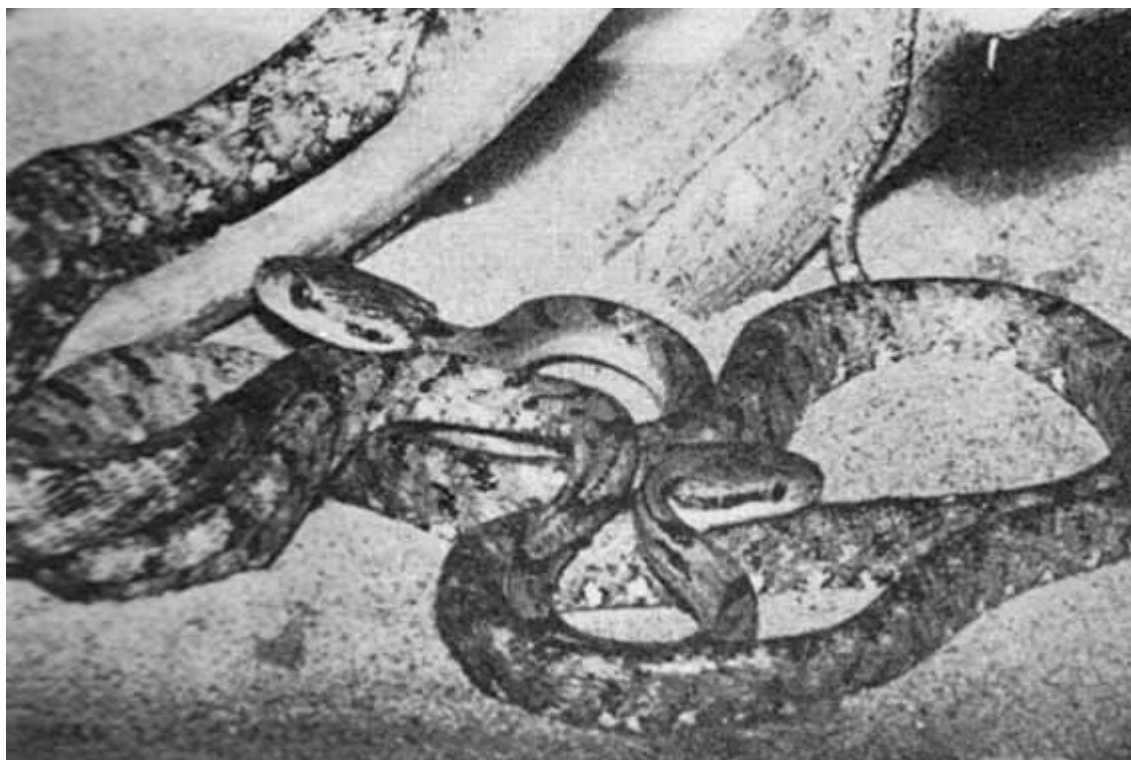


Fig. 1. Photograph accompanying the original description of *Boiga siamensis*, published in Nootpand (1971: 65).
Reproduced with the kind permission of W. Nutphand.

visers in selecting *Boiga siamensis* as the original combination under which the nomen *siamensis* was published.

On page 60, the diagnosis is short and more complete in the Thai text than in the English description. The English text only states that “*Boiga cynodon* and *Boiga cynodon siamensis* have long front fang and have other teeth like fang at the lower jaw.” The combined distribution for both taxa is given as southern and western Thailand in the English text, whereas only southern Thailand is mentioned in the Thai text.

In the table of page 61, written in Thai, the description (presented verbatim) reads as follows, arranged according to the columns of the table:

Common name: *Ngoo sae hang ma thao* (2nd col.)
Boiga sp. *siamensis* (3rd col.)
 Body/tail sizes: 1692/351 mm (4th col.)
 Colour: body gray, with black bands and white spots (5th col.)
 Time of feeding: night time (6th col.)
 Biotope: grassfields and on the trees (7th col.)

Ngoo sae hang ma thao literally means “the gray horse-tail whip snake.” No type specimen was mentioned, but the picture of page 64 depicts two living

specimens which we here consider to be the syntypes. These specimens are now definitely lost (W. Nutphand, personal communication to O. S. G. Pauwels, August 2000). From this picture, in spite of its average quality, it can be seen that these snakes, obviously of the genus *Boiga*, show an intricate mixture of light diffuse blotches inserted between dark dorsolateral blotches, dark blotches at mid-height of flanks and conspicuous white ocelli on the bottom half of the body, and the head marked with a very well defined black postocular streak. It is interesting to note that the description of *Boiga cynodon* appearing on page 61 of Nootpand (1971) is reported as very variable, but there is no mention of the white ocelli typical of *Boiga siamensis*.

Comparison with *Boiga ocellata* Kroon, 1973

The short description of *Boiga siamensis* provided by Nootpand (1971) perfectly agrees with the current concept of *Boiga ocellata*: ratio tail length/total length, color (to be compared with the original description of *B. ocellata*), nocturnal habits and biotope (see Pauwels et al., 2003). The very typical pattern of both *B. siamensis* syntype bodies leaves no doubt on the identity of



Fig. 2. Adult *Boiga siamensis* found at night in forest at Sakaerat Experimental Research Station (locality of the holotype of *Boiga ocellata*), Nakhon Ratchasima Province, Thailand. Photograph by L. Chanhome.

snakes depicted on page 64 in Nootpand (1971). These specimens are identical, in pattern, with those referred two years later to as *Boiga ocellata* Kroon, 1973. We could not examine any specimen referred to *Boiga siamensis* by Nutphand himself, and we are not aware of any specimen deposited by him. However, since (1) this pattern is very peculiar, and thus there is no risk of confusion with any other species of the genus or any other snake of Thailand, and (2) no significant variation that could suggest the existence of more than one species has been shown in known specimens of *Boiga ocellata*, we regard *Boiga ocellata* Kroon, 1973 as a junior homonym of *Boiga siamensis* Nootpand, 1971.

Moreover, Thumwipat and Nutphand (1982) provided a picture of what they called “*Boiga cynodon siamensis*,” which also clearly corresponds to the current concept of *Boiga ocellata*. They (loc. cit.: 114) provided a description of this taxon in Thai, the translation of which is presented hereafter: “Similar to *Boiga cynodon*, but smaller. The body length is 1014 mm (head 28 mm, body 702 mm, tail 284 mm). Front teeth shorter than in *B. cynodon*. The general coloration of body is pale gray, with black or dark gray uncomplete bands. Black lateral lines on head. Found in western Thailand, e.g., in Kan-

chanaburi and Ratchaburi. To date the species was not yet characterized in details. It however differs from *Boiga cynodon* in size, coloration, teeth and some head scales (checked from many specimens). Therefore it is identified as a subspecies of *Boiga cynodon*.”

DISCUSSION

The two syntypes of *Boiga siamensis* are lost. In order to fix the status of this binomen, and in agreement with Art. 75.3 of the *Code*, we here select the holotype of *Boiga ocellata* Kroon, 1973 (FMNH 191997, a male from Sakaerat, Nakhon Ratchasima Province, Thailand; collected by R. F. Inger, April 7, 1969) as the neotype of *Boiga siamensis* Nootpand, 1971. The type locality of this latter species hence becomes the locality of the holotype of *B. ocellata*. The neotype of *B. siamensis* was extensively described in Kroon (1973: 581 – 584), and this description will not be repeated here.

It is not surprising that the description of *Boiga siamensis*, which appeared in a semi-popular book, furthermore mostly written in Thai, was largely overlooked. To our best knowledge, this binomen never appeared in the

Western literature, even as a synonym of *Boiga cynodon*. In the Thai literature, besides Nootpand (1971), it was cited in Thumwipat and Nutphand (1982; as *Boiga cynodon siamensis*), Nutphand (1986; as *B. siamensis*), and Jintakune (1986; as *B. siamensis*). Nutphand (2001) used the specific nomen *ocellata*, as did Jintakune and Chanhom (1995), who however kept the common name *ngoo sae hang ma thao*.

Resurrecting overlooked zoological binomens is often the subject of controversy, as it may threaten the Stability in favor of the Priority, which, it must be stressed again, is the real base of the *Code* (ICZN, 1999). According to Art. 23.9. 1.2 of the *Code*, in order to be retained as a valid name, a junior synonym should have been used as a presumed valid name in at least 25 works, published by at least 10 authors in the immediately preceding 50 years. Here, on the basis of this article, we consider that stability is not threatened, since, to our best knowledge, the combination *Boiga ocellata* was used less than 25 times in the literature (Kroon, 1973; Marx, 1976; Dowling and Jenner, 1988; Welch, 1988; Nabhitabhata, 1989; Coborn, 1991; Cox, 1991; Cox et al., 1998; Das, 1998; Chan-ard et al., 1999; Stuart, 1999; Thirakhupt, 2000; Nutphand, 2001; Iskandar and Colijn, 2002; Orlov and Ryabov, 2002; Orlov et al., 2003a, 2003b; Pauwels et al., 2003; David et al., 2004; Tillack et al., 2004; Whitaker and Captain, 2004). At the exception of Whitaker and Captain (2004), the specific epithet *ocellata* was seemingly overlooked in all Indian references which we consulted, including Das (1996), in which the species was identified as *Boiga cynodon*. The potential risk of threatening the stability being far from met, we consider that *Boiga siamensis* is a valid senior synonym of *Boiga ocellata*.

Boiga siamensis is currently known from Bangladesh, Northeast India (westwards up to Bengal), Myanmar, Thailand, Cambodia, Laos, and Vietnam (Orlov and Ryabov, 2002; Stuart, 1999). In Thailand, it was recorded in the provinces of Chanthaburi, Chiang Mai, Chumphon (currently the southernmost known locality in the area of the Isthmus of Kra), Kanchanaburi, Loei, Nakhon Ratchasima, Phetchaburi, Ratchaburi, Sakon Nakhon, Tak, Trat, and Uthai Thani (Cox, 1991; Pauwels et al., 2003 [as *Boiga ocellata*]; material examined — see *Appendix*). In Vietnam, it is known from Nam Cat Tien National Park in Lam Dong Province (Orlov et al., 2003b). In contrast, *Boiga cynodon* is a southern species, known in South Thailand as far north as the provinces of Phang-Nga (Pauwels et al., 2000) and Prachuap Khiri Khan on the Isthmus of Kra (Cox, 1991) and widespread in Malaysia, Indonesia and the Philippines.

The most recent list of *Boiga* species (Orlov and Ryabov, 2002) and checklist of snakes of Thailand (David et al., 2004) should hence be modified in replacing *Boiga ocellata* Kroon, 1973 by *Boiga siamensis* Nootpand, 1971.

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APPENDIX.

Thai Specimens Examined

Boiga cynodon (30 specimens). MNHN 1998.0596, PWBS 205, Phang-Nga Wildlife Breeding Station, Muang District, Phang-Nga Province; PSGV 24, PSGV 35 (1 embryo), PSGV 37 (3 embryos), PSGV 450, PSGV 467 (3 juveniles), PSGV 468, PSGV 531, PSGV 601 (2 specimens), PSGV 602, PSGV 646 (2 specimens), PSGV 699, no exact locality; PSGV 43, PSGV 47, Thung Song, Nakhon Si Thammarat Province; QSMI 149 – 153, QSMI 245 – 246, QSMI 371, QSMI 410, no exact locality.

Boiga siamensis (6 specimens). CUMZ(R) 1998.12.11.19, Ban Kha Non, Ban Lat District, Phetchaburi Province; IRSNB 15084, Ban Bang Thalu, Muang District, Phetchaburi Province; IRSNB 15584, 25 km NW of Lan-Sak, 65 km NW of Uthai Thani, Uthai Thani Province, el. 110 m; PSGV 368, Sakon Nakhon Province; SERS (unnumbered), Sakaerat Experimental Research Station, Nakhon Ratchasima Province; THNHM 4423, Phriew Waterfall National Park (formerly Khao Sabab National Park), Khlung District, Chanthaburi Province.