

**DRYOCALAMUS DAVISONII TUNGSONGENSIS NUTPHAND,
1986 AND LYCODON SURATENSIS NUTPHAND, 1986
(SERPENTES: COLUBRIDAE): TRANSLATION OF THEIR
ORIGINAL DESCRIPTION AND TAXONOMIC STATUS**

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ABSTRACT.– The original descriptions in Thai of *Dryocalamus davisonii tungsongensis* Nutphand, 1986 and *Lycodon suratensis* Nutphand, 1986 (Serpentes: Colubridae) are translated into English. The taxonomic position of these two taxa is discussed. We place the first taxon in the synonymy of *Dryocalamus subannulatus* (Duméril, Bibron & Duméril, 1854) and the second one in the synonymy of *Lycodon subcinctus subcinctus* Boie, 1827. Their types being lost, we designate a neotype for each taxon in order to fix their status.

KEYWORDS.– Serpentes, *Dryocalamus*, *Lycodon*, Surat Thani, Nakhon Si Thammarat, Thailand, neotype designation, synonymy.

INTRODUCTION

Taylor (1965) recorded from Thailand four species of the genus *Lycodon* Boie in Fitzinger, 1826, namely *L. capucinus* Boie, 1827, *L. fasciatus* (Anderson, 1879), *L. laoensis* Günther, 1864, and *L. subcinctus subcinctus* Boie, 1827, and one species of *Dryocalamus* Günther, 1858 (*D. davisonii* (Blanford, 1878)). Nutphand (1986) published an undocumented revision of these colubrid genera in Thailand, in which he recognized the following taxa: *Dryocalamus davisonii davisonii*, *Dryocalamus davisonii tungsongensis* (as a new subspecies), *Lycondon* (sic) *capucinus*, *Lycodon fasciatus*, *Lycodon laoensis*, *Lycodon subsinictus subsinictus* (sic), and *Lycodon suratensis* (as a new species). All Nutphand's snake species descriptions were superficial and did not refer to any material registered in scientific collections. They were moreover published in semi-popular publica-

tions in Thai language with a limited readership, mostly distributed in a private zoological garden in Bangkok. Nevertheless, although largely overlooked by most herpetologists, these works were printed and distributed, and hence are considered to be valid publications in regards to Art. 8.1 of the International Code of Zoological Nomenclature (ICZN, 1999; hereafter referred to as “*The Code*”).

The status of Nutphand's two new taxa has never been discussed. The lack of type specimens is in this case, as in other taxa described by Nutphand (see David et al., 2004), a problem for discussing their validity. For instance, Pauwels et al. (2005a) had to designate a neotype for *Boiga siamensis* Nootpand, 1971, an overlooked junior synonym of *Boiga ocellata* Kroon, 1973 (Nootpand and Nutphand are two transliterations of his name that he used in his publications over the years). The specimens used

for the description of *Naja naja isanensis* Nutphand in Thumwipat & Nutphand (1982) were not preserved, which led Wüster et al. (1997) to designate a neotype for that taxon. Nutphand et al. (1991a) had to designate a lectotype for *Boiga saengsomi* Nutphand, 1985. Other complications linked to Nutphand's taxonomic work were presented by Nutphand et al. (1991b) and David et al. (2004).

In the present paper, we make the original descriptions of *Dryocalamus davisonii tungsongensis* and *Lycodon suratensis* available to the herpetological community by providing their translations into English. The taxonomic status of these taxa is discussed. In order to reduce the possible confusion generated by the undocumented descriptions by Nutphand, and in agreement with the *Code*, we here designate neotypes for *Dryocalamus davisonii tungsongensis* and *Lycodon suratensis*. A list of the material examined for this study is given in Appendix I.

Museum abbreviations. IRSNB: Institut Royal des Sciences Naturelles de Belgique, Brussels; MNHN: Muséum National d'Histoire Naturelle, Paris; QSMI: Queen Saovabha Memorial Institute, Thai Red Cross Society, Bangkok; SERS: Sakaerat Environmental Research Station, Sakaerat; THNHM: Thai Natural History Museum, Patumthani.

RESULTS

DRYOCALAMUS DAVISONII

TUNGSONGENSIS NUTPHAND, 1986

Translation of the original description.— p. 159 in: Nutphand, W. 1986. Ngoo plang chanuan. Wolf snakes [in Thai]. *Thai Zoological Center*, Bangkok, 1 (9): 153-159.

7. Yellow stripe Wolf Snake (New subspecies)

Dryocalamus davisonii tungsongensis Nutphand

Size: Midbody diameter like that of a pencil. Length from tip of snout to end of tail 70 cm.

Distribution: Obtained from Nakhon Si Thammarat Province.

Colour: Head exactly like that of Ngoo plang chanuan ban [translators' note: i.e., *Dryocalamus davisonii davisonii*]. Body brown with one dorsal stripe, and one lateral stripe on each side. The three stripes golden yellow, beginning

from the neck down to the end of the tail. Belly white.

Taxonomic status.— Cox (1991a) mentioned only *Dryocalamus davisonii* (Blanford, 1878) and *Dryocalamus subannulatus* (Duméril, Bibron & Duméril, 1854) as occurring in Thailand. The presence of this latter species in Thailand was first mentioned by Nabhitabhata (1989: 202), i.e. several years after Nutphand's revision. Interestingly, Cox (1991a: 202) briefly stressed the extreme similarity between *Dryocalamus davisonii tungsongensis* and *Dryocalamus subannulatus*. According to Cox (1991a), *D. subannulatus* presents two very different colour morphs: a cross-banded variety similar to *D. davisonii* from which it can, however, easily be distinguished by scalation characters, and a striped variety. *D. subannulatus* was described on the basis of a single specimen of the cross-banded variety. The two varieties of *D. subannulatus*, well illustrated by Cox et al. (1998: 65), are regarded as conspecific on the basis of their similarity in scalation. In fact, both specimens represented by Cox et al. (1998: 65) originate from Thung Song (Gernot Vogel, pers. comm. to OSGP, March 2001), i.e., the exact type locality of *D. davisonii tungsongensis*. The few elements presented in the concise description of *D. davisonii tungsongensis* and the photography of the species agree very well with the striped form of *Dryocalamus subannulatus*, and we here synonymize these taxa.

D. subannulatus is already known from Nakhon Si Thammarat Province (Cox, 1991a: 203; Manthey and Grossmann, 1997: 340) and has also been recorded from two other southern Thai provinces: Phang-Nga (Pauwels et al., 2000: 141; banded variety) and Surat Thani (Bulian, 1999: 67; banded variety), as well as from West Malaysia, Singapore, Borneo, Sumatra and the Philippines (Palawan). If *D. davisonii* is widespread in Thailand north of latitude 11°N (Taylor, 1965) its presence in southern Thailand is more controversial. It is attested to only by the picture of a living specimen from Thung Thao, Surat Thani Province (see Chan-ard et al., 1999: 162). However, K.-D. Schulz (comm. pers. to OSGP, Feb. 2001), who shot this picture, informed us that the specimen was released without any meristic count done. The possibility

that this specimen is in fact a cross-banded *D. subannulatus* cannot be excluded. Moreover, the picture was taken in the garden of J. Bulian (Schulz, pers. comm. to OSGP) who, in the list of the snakes found in his garden (Bulian, 1999), quoted only *D. subannulatus* (indeed the cross-banded form). Cox et al. (1998: 64), however, stated that *D. davisonii* occurs in Thailand as far south as Krabi.

The subspecific nomen *tungsongensis* refers to the city of Thung Song (8°17'N, 99°50'E), Thung Song District, in the Province of Nakhon Si Thammarat, southern Peninsular Thailand. The original description is accompanied by a picture, representing a single specimen that has to be considered the holotype by monotypy. According to Nutphand (pers. comm. to OSGP, 1999), this specimen is definitely lost. As a consequence, in agreement with Art. 75.3 of the *Code*, we designate a neotype for this species:

Designation of a neotype for *Dryocalamus davisonii tungsongensis*.— A specimen of *Dryocalamus subannulatus*, from the same locality as the type locality of *D. davisonii tungsongensis*, agrees both with the original description and the requirements of Art. 75.3 of the *Code*.

THNHM 3242, presumably an adult female (not dissected), from “Lansaka District, Nakhon Si Thammarat, Khao Luang National Park, caught on tree trunk, 2 m above forest floor, at 10 P.M., 19 July 2003, in the vicinity of Karoam Falls, Headquarters of the park.”

Habitus.— Total length 684 mm (SVL 515 mm; tail length 169 mm). Body very elongate, laterally compressed, with a distinct head; midbody width 8.0 mm. Head length 16.0 mm; maximum width of head: 10.4 mm. Eye moderate (horizontal diameter 2.3 mm) with vertically elliptical pupil; eye-tip of snout distance: 4.9 mm; eye-nostril distance: 3.1 mm.

Body scalation.— 2 preventrals + 236 keeled ventrals; 105 paired, keeled, subcaudals. Dorsal scales in 15-15-15 rows, all smooth. No apical pits. Supracaudals smooth.

Head scalation.— Rostral clearly visible from above, posteriorly pointed, forming an anterior notch between the internasals; 2/2 internasals; 2/2 prefrontals, of ca. same length as, but wider than internasals (contact between internasals 1.4

mm; contact between prefrontals 1.8 mm); nasal undivided; nostril in its middle; 1/1 preocular; 2/2 postoculars (the upper one the smallest); loreal scale ca. twice as long as high, in contact with the eye, the preocular, the prefrontal, the nasal, and the 2nd-3rd supralabials; 7/7 supralabials, of which the 3rd-4th enters orbit; 1/1 large, undivided, supraocular; 2+2 temporals on each side; length of frontal (4.1 mm) slightly less than contact between interparietals (4.3 mm); 8/8 infralabials of which the first four on each side border the anterior pair of sublinguals; anterior sublinguals much wider and longer than posterior ones.

Colouration in alcohol.— Body dark brown, with a mediodorsal light stripe beginning above 7th ventral, uninterrupted, limited to vertebral row, becoming indistinct on the last fifth of the tail. Anterior to the 50th ventral, the mediodorsal light stripe shows a median dark brown spot on each vertebral scale; posteriorly, these median spots fuse and form a median thin brown line (same brown as background dorsum colour) within the light stripe. Two lateral stripes on body, also uninterrupted, becoming indistinct posteriorly along the second half of the tail. On the body, the lateral stripes are mostly limited to row 4 on each side of the body; along the tail, they are limited to between supracaudal rows 1 and 2. The lateral light stripes show a dark brown longitudinal irregular median stripe, indistinct along the forebody, slightly widening posteriorly (limited to scale row 1), but not continuing onto the tail.

Head dorsum dark brown; lateral head light brown spotted with whitish-yellow, becoming progressively lighter towards supralabials, which are ivory; the two colours separated by a whitish border.

Chin, venter and subcaudals uniformly white. In life, the three dorsal light stripes were golden yellow.

LYCODON SURATENSIS NUTPHAND, 1986

Translation of the original description.— pp. 157-158 in: Nutphand, W. 1986. Ngoo plang chanuan. Wolf snakes [in Thai]. *Thai Zoological Center*, Bangkok, 1 (9): 153-159.

5. Black Wolf Snake (New species)

Lycodon suratensis Nutphand

Size: Midbody diameter like that of the ring finger. Length from tip of snout to end of tail 80 cm.

Distribution: Occurs in the South in Nakhon Si Thammarat Province and Surat Thani Province.

Colour: Head with pale colour, white in some specimens. Body black to the end of the tail, with 2-3 white rings on the anterior half of the body, totally black posteriorly. Belly greyish white.

Taxonomic status.— *Lycodon suratensis* has been totally overlooked in the western literature and was not even mentioned by Nabhitabhata (1989). Besides this species, seven *Lycodon* species are currently known to be present in Thailand: *Lycodon butleri* Boulenger, 1900 (see Cox, 1991b-c), *L. capucinus* Boie, 1827, *L. cardamomensis* Daltry & Wüster, 2002, *L. effraenis* (Cantor, 1847), *L. fasciatus* (Anderson, 1879), *L. laoensis* Günther, 1864, and *L. subcinctus* Boie, 1827 (see Cox, 1991a; Pauwels et al., 2005b). The same species, with the exception of *L. cardamomensis* and *L. fasciatus*, occur in Peninsular Malaysia.

Besides the few characters provided in the description of *Lycodon suratensis*, one can note in the picture that the scales seem smooth or at most slightly keeled, the eye is of moderate size, the flat head slightly distinct; the habitus is definitely that of a *Lycodon*. The description of *L. suratensis* seems to exclude a conspecificity with *L. butleri* notably because of the venter colouration, with *L. capucinus* notably because of the wide white cross-bands on anterior body, with *L. effraenis* and *L. fasciatus* because of the head and venter colouration (the latter species not being known from southern Thailand), with *L. laoensis* notably because of the large size (see Cox et al., 1998: 63). *L. cardamomensis* retains distinctly contrasting light cross-bands throughout body and tail in adult specimens (more precisely, above the size of 80 cm of total length given in the description of *L. suratensis*; see Pauwels et al., 2005b). On the contrary, the description of *L. suratensis* could apply to *L. s. subcinctus* in every respect. We therefore synonymize *Lycodon suratensis* with *Lycodon subcinctus subcinctus*.

It should, moreover, be noted that Nutphand (1986) illustrated *L. subcinctus* with a picture

of an adult *L. effraenis*, this latter species being not listed by him from Thailand. *L. effraenis* was not quoted among Thai snakes by Nabhitabhata (1989) nor by Cox (1991). Jintakune & Chanhom (1995) indicated that the first Thai *L. effraenis* was found in Krabi Province in 1990, but Grossmann (1989) recorded it from southern Thailand, this first mention being anyway subsequent to Nutphand's revision. *Lycodon s. subcinctus* has been repeatedly reported from the province of Nakhon Si Thammarat (Taylor, 1965: 739; Chan-ard et al., 1999: 172; Manthey and Grossmann, 1997: 364) and is widely distributed from China to the Philippines (Manthey and Grossmann, 1997). In his 2001 synthesis of the snakes of Thailand, Nutphand demonstrated an extreme confusion in his concepts of Thai *Lycodon* species, all the pictures he presented but those of *L. laoensis* misidentified (see David et al., 2004). For instance, *L. subcinctus* was illustrated by pictures of *L. effraenis*, and *L. fasciatus* was depicted using both *L. subcinctus* and *Lepturophis albofuscus*. His *Lycodon capucinus* account was illustrated using *Dryocalamus davisonii* and *Lycodon subcinctus*.

The specific nomen of *Lycodon suratensis* refers to the Province of Surat Thani, southern Peninsular Thailand. The original description is accompanied by a picture of a single specimen. Since the description infers that several specimens were examined by Nutphand, and since Nutphand did not designate a holotype, the specimen illustrated must be regarded as one of the syntypes. In agreement with the *Code*, we select the specimen depicted in Nutphand (1986) as the lectotype of *Lycodon suratensis*. However, according to Nutphand (1999, pers. comm. to OSGP), this specimen and the others on which the description was based are confirmed as lost. As a consequence, in agreement with Art. 75.3 of the *Code*, we designate a neotype for this species.

Designation of a neotype for *Lycodon suratensis*.— The following specimen of *Lycodon subcinctus subcinctus*, from a locality close to the type locality of *Lycodon suratensis*, agrees both with the original description and the requirements of Art. 75.3 of the *Code*.

IRSNB 2610, an adult female, from "Thung Song, Nakhon Si Thammarat Province". Collec-

tor unknown, 2004. Donation Kiraty Kunya and Olivier S. G. Pauwels.

Habitus.— Total length 724 mm (SVL 596 mm; tail length 128 mm). Body elongate, laterally compressed, with a flat, subrectangular head, distinct from the neck; snout squarish, depressed; midbody width 10.8 mm. Head length 21.4 mm; maximum width of head: 11.3 mm; eye moderate (horizontal diameter 2.7 mm) with vertically elliptical pupil; eye-tip of snout distance: 6.0 mm; eye-nostril distance: 3.7 mm.

Body scalation.— 2 preventrals + 215 ventrals, not keeled; 73 divided subcaudals. Dorsal scales in 17-17-17 rows, narrowly keeled on the 6th-9th scale rows. No apical pits visible. Supracaudals distinctly keeled on all rows.

Head scalation.— Rostral barely visible from above, short, posteriorly pointed, barely forming a notch between the internasals; 2 internasals; 2 prefrontals, 1.7 longer and 1.4 wider than internasals, entering orbit; nasal undivided, with a large, elliptical nostril in its middle; no preocular, 2/2 postoculars (the lower one the smallest); 1/1 loreal scale, slightly curved downward on its anterior part, ca. twice as long as high, in broad contact with the eye and the nasal, in contact with the prefrontal and 2nd-3rd supralabials; 8/8 supralabials, of which the 3rd-5th enter orbit; 1/1 large, undivided, supraocular; 1+2 temporals on each side; frontal (length 4.3 mm) shorter than the contact between interparietals (4.9 mm), but longer than the contact between prefrontals (length 3.6 mm); 9/9 infralabials, of which, on each side the four first are in contact with the anterior pair of sublinguals; anterior sublinguals 1.2 wider and 1.5 longer than posterior ones.

Colouration in alcohol.— Overall body surface dark brown, with only three visible broad crossbands on the anterior part of the body, about 7 scales long and widening at their base; the first cross-band, ivory, is very distinct, the third one, dark reddish-brown, is barely distinct; the posterior half of the body and the tail are uniformly dark brown; a wide ivory nuchal collar, narrow on the top of the neck, wider at its base.

Head dorsum dark brown, with posterior supralabials a lighter yellowish-brown; some ivory blotches on the occipital region near the anterior margin of the nuchal collar.

Venter and subcaudals rather dull, anterior half of each ventral plate dark greyish-brown, posterior half light brownish-grey. Chin and throat uniformly whitish-yellow.

ACKNOWLEDGEMENTS

We are grateful to Frédéric Chérot (Université Libre de Bruxelles, Brussels), Jacques Hill (SERS, Sakaerat), Group Captain Wirot Nutphand (Thai Zoological Center, Pata, Bangkok), Klaus-Dieter Schulz (Wuerselen) and Montri Sumontha (Ranong Marine Fisheries Station, Ranong) and Gernot Vogel (Heidelberg) for constructive discussions. Lawan Chanhome (Queen Saovabha Memorial Institute, Bangkok), Taksin Artchawakom (SERS, Sakaerat), Georges Lenglet (IRSNB, Brussels) and Kumthorn Thirakhupt (Chulalongkorn University, Bangkok) kindly gave access to the collections in their care. Kiraty Kunya (Korat Zoo, Khorat) generously donated the neotype of *Lycodon suratensis*. Chucheeep (Teak) Chimsunchart (Phetchaburi) greatly helped with translations of Thai literature.

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Received: 10 April, 2005.

Accepted: 3 May 2005.

APPENDIX I
SPECIMENS EXAMINED

The following list does not include the neotypes designated above. It includes only specimens whose meristic and other characters were studied in detail by at least one of us. See the Introduction for the museum abbreviations.

Dryocalamus davisonii: QSMI 595 (Hin Chang See Nature Park, Ban Fang District, Khon Kaen Province, Thailand); SERS (unnumbered; Sakaerat Environmental Research Station, Sakaerat, Nakhon Ratchasima Prov., Thailand); see also Chanhom et al. (2001: 54), Pauwels et al. (2003: 31).

Dryocalamus subannulatus: see Chanhom et al. (2001: 54; striped form), Pauwels et al. (2000: 141; banded form).

Lepturophis albofuscus: IRSNB 16991 (Thung Song, Nakhon Si Thammarat Prov., Thailand); see also Chanhom et al. (2001: 55).

Lycodon capucinus: IRSNB 16988 (Sakaerat, Nakhon Ratchasima Prov., Thailand); SERS (unnumbered; Sakaerat

Environmental Research Station, Sakaerat, Nakhon Ratchasima Prov., Thailand); see also Chanhom et al. (2001: 55), Pauwels et al. (2003: 32), Pauwels and Kheowyoo (2004).

Lycodon cardamomensis: see Pauwels et al. (2005 b).

Lycodon effraenis: see Chanhom et al. (2001: 55).

Lycodon fasciatus: see Pauwels & Chan-ard (2005).

Lycodon laoensis: IRSNB 16989 (Sakaerat, Nakhon Ratchasima Prov., Thailand); MNHN 1998.8549 (Chiang Mai city, Chiang Mai Prov., Thailand); QSMI 593 (Hin Chang See Nature Park, Ban Fang District, Khon Kaen Province); see also Chanhom et al. (2001: 55), Pauwels et al. (2000: 142).

Lycodon s. subcinctus: IRSNB 16557 (southern Thailand); IRSNB 16990 (Sakaerat, Nakhon Ratchasima Prov., Thailand); SERS (unnumbered; Sakaerat Environmental Research Station, Sakaerat, Nakhon Ratchasima Prov., Thailand); see also Chanhom et al. (2001: 55-56), Pauwels et al. (2000: 142).