

## First Record of Indochinese Spitting Cobra *Naja siamensis* Laurenti (Serpentes: Elapidae) from Laos, With Comments on the Genus in the Country

Although three species of *Naja* occur in adjacent countries, only *N. kaouthia* has been confirmed from Laos. The specific identifications of Laotian *Naja* records in the literature are unclear, and voucher specimens from Laos other than *N. kaouthia* are not known. We here report on a photographic record of *Naja siamensis* from Laos, which we believe is the first record for the country.

The systematics of Asian cobras in the genus *Naja* are complex, and there is considerable overlap in color patterns and scale counts among species (see WÜSTER, 1996 and WÜSTER ET AL., 1997 for reviews of this topic). Previously, all Asiatic cobras were classified as various subspecies of the single species *Naja naja*, but recent systematic work has split *Naja naja* into 10 species (WÜSTER, 1996). Three of these species occur in the vicinity of Laos: *N. atra* in China and northern Vietnam, *N. kaouthia* from eastern India across the Indochinese peninsula to southern Vietnam, Cambodia, and Peninsular Malaysia, and *N. siamensis* in Thailand, Cambodia, and southern Vietnam (WÜSTER, 1996).

DEUVE (1970) assigned all Laotian cobras to the taxon *Naja atra* (*Naja naja atra*), but it remains unclear which of the three Indochinese species his records refer. He reported the ventral scales of Laotian cobras to range from 155–184, which encompasses the known ranges for *N. siamensis* (153–174), *N. kaouthia* (170–197), and *N. atra* (161–182) (WÜSTER ET AL., 1997, SLOWINSKI & WÜSTER, in press). Deuve's illustration of the variability seen in Laotian cobra hood markings (Figure 23, p. 215) included U-shaped markings, which are sometimes seen in *N. siamensis* (when not indistinct or absent entirely), and the O- and mask-shaped markings characteristic of *N. kaouthia* and *N. atra* (WÜSTER ET AL., 1997). However, DEUVE's comments on the position of the venom discharge orifice in some cobras, which allows them to spit venom, seem to refer to Asiatic cobras in general. He does not mention anything about the remarkable behavior of spitting venom in his detailed behavioral observations of *Naja* in Laos, which suggests he may never have actually encountered live *N. siamensis* there.

To date, only *N. kaouthia* has been confirmed from Laos, including the single *Naja* specimen from Laos traceable to Deuve [MNHN 1985.408, Muséum National d'Histoire Naturelle (Paris), collected in 1962 by J. Deuve four kilometers west of Vientiane, with 177 ventral scales (O. S. G. Pauwels and P. David, personal communication, 2000)], and by a more recent specimen [FMNH 254793, Field Museum (Chicago), collected in 1996 by H. Heatwole and D. Davenport near Taveng in the vicinity of the border town Ban Lak 20, Bolikhamsai Province, 186 ventral scales (A. Resetar, personal communication, 1999)]. Laotian records of *N. atra* and *N. siamensis* have not turned up during recent reviews of Asian *Naja* specimens in the holdings of major international museum collections (WÜSTER ET AL., 1995; WÜSTER ET AL., 1997). *Naja atra* is known from southern China and northern



Figure 1. Frontal view of Indo-Chinese Spitting Cobra *Naja siamensis* photographed captive in a village near Dong Phou Vieng National Biodiversity Conservation Area, Savannakhet Province, central Laos. Photograph by T. Chan-ard.

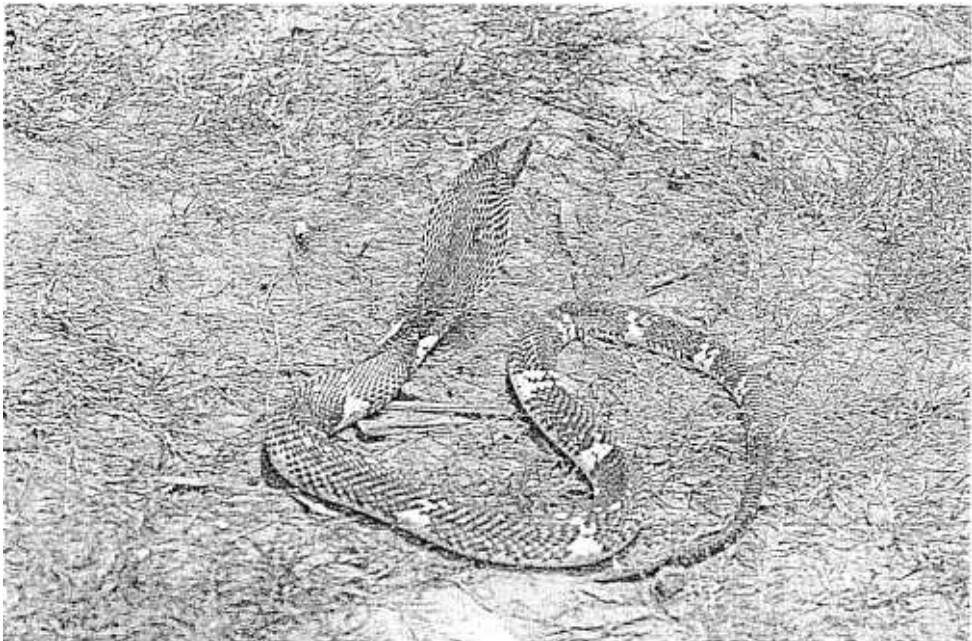


Figure 2. Rear view of the same snake in Figure 1. Photograph by T. Chan-ard.

Vietnam, and is suspected in northern Laos; further herpetological survey work in northern Laos should produce specimens. *Naja siamensis* is known from northeastern Thailand, very near the Laotian border, and has been strongly suspected to occur in the lowlands of the Mekong floodplain in Laos (WÜSTER ET AL., 1997).

In March 1997, a single live adult *N. siamensis* (Figures 1–2) was encountered during the course of a herpetological survey by one of us (TC) in Dong Phou Vieng National Biodiversity Conservation Area (NBCA), Savannakhet Province, central Laos. The specimen was seen just outside of the NBCA boundary in captivity in Ban Tad Hai village (16° 16' 30" N; 105° 44' 20" E, approximately 120 m elevation, Muang Phin District), and was being held in the village while awaiting sale to Vietnamese traders. Residents of several villages within walking and bicycle-riding distance of Ban Tad Hai reportedly brought wildlife there en route to sale to Vietnamese traders in Muang Phin town. Although the exact provenance of the specimen remains unknown, it was almost certainly captured near one of the neighboring villages of Ban Tad Hai. The habitat in the vicinity was deciduous dipterocarp forest.

The photographed *N. siamensis* in Figures 1–2 was distinguished from *N. kaouthia* and *N. atra* by: 1) the brightly contrasting black-and-white pattern, which is a color pattern not seen in *N. kaouthia* or *N. atra*, and 2) by the absence of a hood marking (except for an indistinct dark spot on the right side of the hood), which is commonly absent in *N. siamensis*, but normally present in *N. kaouthia* and *N. atra* (WÜSTER ET AL., 1997). The specimen was not observed to spit venom in defense, but rather tried to flee when temporarily released for photography. Interestingly, the black-and-white color pattern of *N. siamensis* has been previously reported only in populations from central Thailand, whereas specimens from northeastern Thailand, Cambodia, and Vietnam usually are a uniform shade of brown or olive (WÜSTER ET AL., 1997). Unfortunately, circumstances at the time prevented the cobra from being preserved. Obtaining a specimen from Laos is considered a priority, in the light of the complicated systematics of the genus in Asia.

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