

## Short Communication

# First record of *Psammophis indochinensis* Smith, 1943 from Cambodia, within the context of a distributional species account

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Until 1999, the Indochinese sand snake *Psammophis indochinensis* Smith, 1943, was treated as a subspecies of *Psammophis condanarus* (Merrem, 1820). Herein, we follow Hughes (1999) in regarding *P. indochinensis* as a full species due to the substantial differences in dorsal microdermatoglyphic characters pointed out by Brandstätter (1995), which warrant distinct specific status. The former nominotypic subspecies *P. condanarus* occurs in Pakistan, Nepal and North India as far east as 86° East (Boulenger, 1890; Brandstätter, 1996; Smith, 1943; Taylor, 1965). *Psammophis indochinensis* is thus the only member of Psammophiid snakes occurring in mainland Southeast Asia. So far, it has been recorded from Myanmar, Thailand, Laos and Vietnam (for details see Fig. 1).

Besides these mainland records, Ineich & Deuve (1990) reported on a specimen from Bali, Indonesia, and Mertens (1957) mentioned one specimen from eastern Java, Indonesia. Hence, *P. indochinensis* has a highly disjunct distribution, which is strikingly analogous to that of the viper *Daboia siamensis* (Smith, 1917). *Daboia siamensis* is known from Myanmar, Thailand, Cambodia, southern China, Taiwan and Indonesia (eastern Java and several of the Lesser Sunda Islands) (Wüster, 1998; Thorpe *et al.*, 2007). Mertens (1927) recognized the Indonesian populations as a distinct subspecies of *Daboia russelii* (Shaw & Nodder, 1797) (*D. r. limitis*), which was rejected by Wüster (1998). Molecular analyses by Thorpe *et al.* (2007) showed that the Indonesian populations do not represent a distinct taxon and must be assigned to *D. siamensis*. Still, molecular studies are needed to resolve the taxonomic status of the Indonesian populations of *P. indochinensis*.

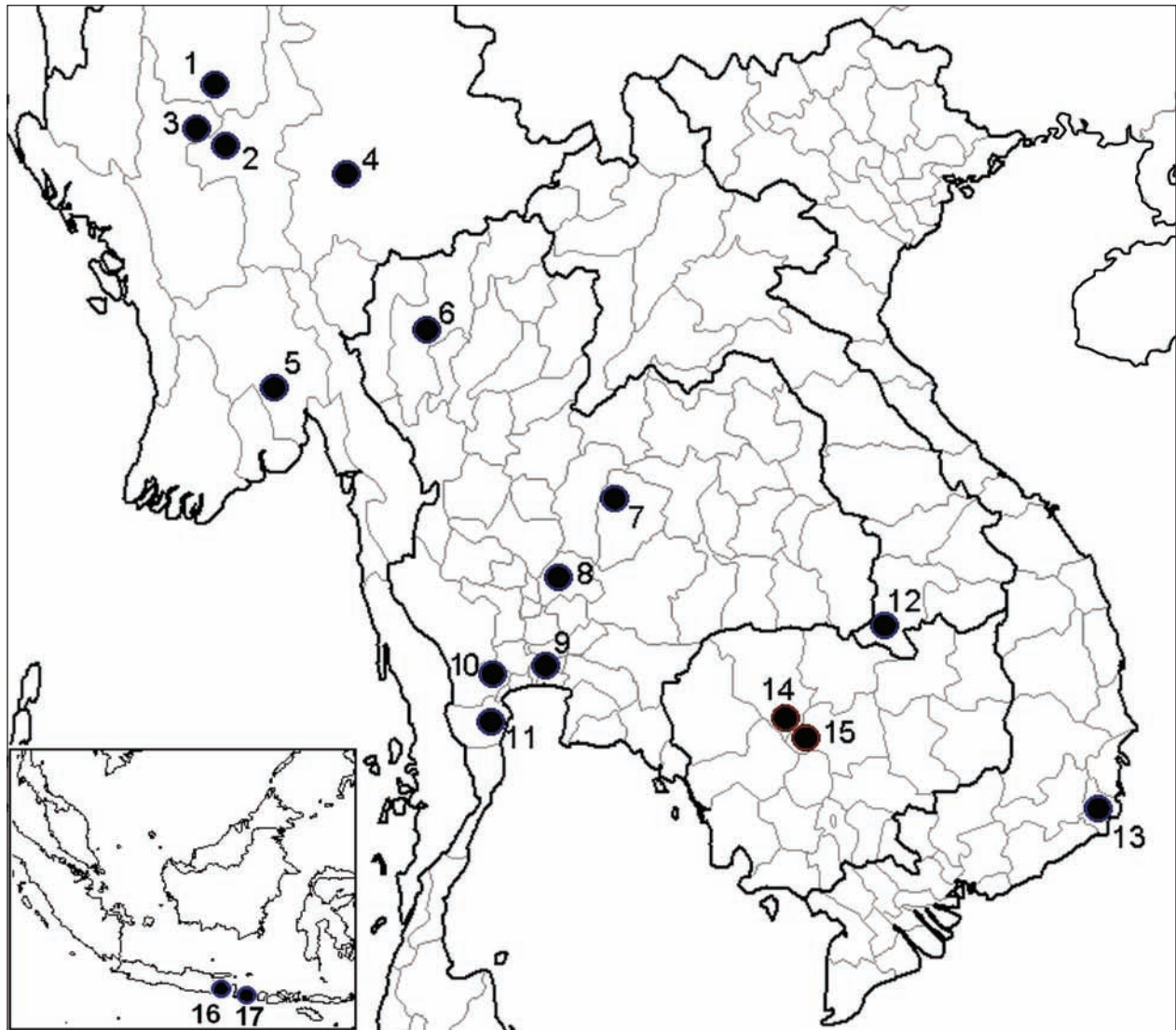
In February 2010, during ornithological work in the seasonally inundated grasslands of the Tonle Sap flood-

plain, at Krous Kraom in Kampong Thom Province (approximately UTM P48 482000E 1391000N) at 1500h, a series of photographs was taken of a single live specimen of *P. indochinensis* (Fig. 2). Driving by truck on a recently established dam for dry season rice growing, we spotted the snake on the dirt track in front of the vehicle where it remained 'frozen', thus allowing us to examine it from a close distance and take photographs. Eventually the snake fled quickly into the adjacent ditch where it dived into the water and disappeared from sight.

In addition to this record, in February 2008 in Chikraeng District, Siem Reap Province (approximately UTM P48 436000E 1434000N) at about 1400h, another specimen of *P. indochinensis* was found trapped and immobilized in an old fishing net by M. Handschuh. The snake was photographed and released (Fig 3.). Our two records indicate that the species may be widely distributed in the Tonle Sap floodplain.

Both of our observations of *P. indochinensis* are consistent with Pauwels *et al.*'s (2003) suggestion of an activity peak at the beginning of the year, based on their observations in Phetchaburi Province, Thailand.

Through the combination of the following characters the photographed individuals can be assigned to *P. indochinensis*: body slender, head scarcely distinct from the neck, loreal region distinctly concave, large eye, pupil rounded, dorsal scales smooth, four brownish dorsolateral and lateral stripes (no vertebral stripe), lateral stripes continue on to the head through the eye and terminate at the snout, two dark ventral hairlines at the outer edge of the ventral scutes (Figs 2 & 3).



**Fig. 1** Map showing records of *Psammophis indochinensis*. MYANMAR: (1) Monywa District, Sagaing Division (Wogan *et al.*, 2008); (2) Myingyan District, Mandalay Division (*ibid*); (3) Pakokku District, Magwe Division (*ibid*); (4) Taunggyi, Shan State (Boulenger, 1896); (5) Bago Division (Boulenger, 1890); THAILAND: (6) Doi Suthep, Chiang Mai Province (Taylor, 1965); (7) Phu Khieo, Chaiyaphum Province (Das, 2010); (8) Lopburi Province (Smith, 1943); (9) Bangkok (*ibid*; ZFMK 16 658); (10) Photharam, Ratchaburi Province (Chan-Ard *et al.*, 1999); (11) Tha Yang & Muang District, Phetchaburi Province (Pauwels *et al.*, 2003); LAOS: (12) Dong Khantung, Champasak Province (Stuart, 1998; Teynié *et al.*, 2004); VIETNAM: (13) Phan Rang, Ninh Thuan Province (Smith, 1943; Nguyen *et al.*, 2009; ZFMK 88 831); CAMBODIA: (14) Chikreang District, Siem Reap Province (this paper); (15) Kruos Kraom, Kampong Thom Province (*ibid*); INDONESIA: (16) Gresik, Eastern Java (Mertens, 1957); (17) Near Mount Merbuk, Bali (Ineich & Deuve, 1990).

Pauwels *et al.* (2003) listed *P. indochinensis* as occurring in Cambodia, but without giving any further information. They referred to Saint Girons (1972), David & Ineich (1999) and Daltry & Chheang (2000) for the Cambodian snake records, but none of the quoted works mentions *P. indochinensis*. Therefore, our photographs represent the first documented record of *P. indochinensis* for Cambodia.

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**Fig. 2** (top) *Psammophis indochinensis*, Krous Kraom, Kampong Thom Province, central Cambodia; (below) Lateral view of the same individual's head, 6 February 2010 (© Markus Handschuh).



**Fig. 3** *Psammophis indochinensis* trapped in an old fishing net. Chikraeng District, Siem Reap Province, central Cambodia, 18 February 2008 (© Jürgen Müller).

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