

REDISCOVERY OF THE INDOCHINESE RAT SNAKE *PTYAS KORROS* (SCHLEGEL, 1837) (SERPENTES: COLUBRIDAE) IN BORNEO

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ABSTRACT. - A roadkill of the Indochinese Rat Snake recorded in West Kalimantan, confirms this species is native to Borneo. *Ptyas korros* was last recorded in South and East Kalimantan, almost one hundred years ago. The specimen was found amid cleared and cultivated land, between the provincial capital Pontianak and the Supadio airport. With this record, Borneo harbours 158 snake species.

KEY WORDS. - Borneo, ecology, Indonesia, *Ptyas korros*, snake diversity, West Kalimantan.

INTRODUCTION

In Borneo, the widely distributed *Ptyas korros* (India via SE-Asia to Bali) has only been recorded in Kalimantan (Indonesian Borneo), although the majority of herpetological investigations have been conducted in Sarawak and Sabah (Malaysian Borneo) (e.g. Haile, 1958; Inger, 1966; Inger & Voris, 1993; Stuebing, 1991; Murphy et al., 1994; Stuebing, 1994; Inger & Tan, 1996). De Rooij (1917) described the first records from Banjarmasin (South Kalimantan) and Samarinda (East Kalimantan). Stuebing and Inger (1999) note that *P. korros* was last recorded almost one hundred years ago, questioning the presence in Borneo's ophidian fauna. The species was therefore not included in their species checklist (Stuebing & Inger, 1999).

During a one-year field study in West Kalimantan (Indonesian Borneo) in 1996, the ecology and trade dynamics of *Varanus salvator*, *Python reticulatus* and *Python curtus* were investigated. Incidental encounters of reptiles as roadkills, and other chance observations in the field resulted in around 60 reptile species records. These findings included a roadkill of *Ptyas korros* found in August 1996 on the Supadia Airport road approximately 17 km Southeast of the provincial capital Pontianak [00°09'N; 109°24'E]. The snake had been freshly killed, and was in good condition for thorough examination. It is deposited in the Zoologisches Forschungsinstitut und Museum Alexander Koenig in Bonn, Germany (ZFMK 65829).

RESULTS AND DISCUSSION

Morphology. - Total length is 182 cm (SVL 120.5 cm, TL 61.5 cm). Data on pholidosis is shown in Table 1, compared to descriptions provided by Boulenger (1893), De Rooij (1917) and Manthey & Grossmann (1997). The single small subocular is characteristic. The large preoculars on both sides do not meet the frontal. Six infralabials are in contact with the anterior chin shields.

The colour pattern described by the above authors corresponds with the author's examined specimen ZFMK 65829. The posterior end of the body and tail of the olive-coloured colubrid is marked distinctly with black-edged scales.

Habitat and Ecology. - The environment surrounding the place of discovery is characterised by tidal swampland, evolved from floodplains of the Kapuas river. The region has been largely drained and converted into aquaculture and agriculture. Drainage ditches are widespread, including those established on both sides of the road between the airport and capital.

In Thailand, *Ptyas korros* occurs up to 3000 m, frequenting forests and agricultural land (Cox et al., 1998). In Java, this species has been recorded up to 700 m, and is known to be strongly associated with rice fields (De Rooij, 1917; De Haas, 1950). During daytime, it feeds opportunistically on a wide range of vertebrates, e.g. frogs, lizards, snakes, birds, mice and rats, the latter in the vicinity of human settlements (Van Hoesel, 1959; Manthey & Grossmann, 1997). Of six

Table 1. Scalation characteristics of *Ptyas korros*.

	Boulenger (1893) ¹	De Rooij (1917) ²	Manthey & Grossmann (1997) ³	ZFMK 65829
Ventrals	162-177 (N = 13)	160-177	160-187	168
Subcaudals	122-145 (N = 7)	122-145	120-147	127 (not tail-tip)
Midbody scales	15	15	15 or 17	15
Anal shield	divided	divided	divided	divided
Supralabials	8 (4,5 enter orbit)	8 (4,5 enter orbit)	7-8 (3,4 or 4,5 enter orbit)	8 (4,5 enter orbit)
Infralabials	-	-	10	10
Preoculars	1 (large)	1 (large)	1 (large)	1 (large)
Postoculars	2	2	2	2-3
Suboculars	1 (small)	1 (small)	1 (small)	1 (small)
Loreals	2-3	2-3	2-3	2
Temporals	2+2	2+2	-	2+2

¹ In other scalation characters but ventrals and subcaudals, N = 13 is assumed.

² De Rooij (1917) mentions 20 Indonesian records. Sample sizes are at least $n \geq 20$, if locality records refer to a single specimen.

³ Sample size is not specified.

specimens examined, stomach contents of four contained rats (*Rattus tanezumi*, *R. tiomanicus*), and in two others the mammalian prey was unidentifiable (Lim, 1956). According to Lim (1991), the Indochinese Rat Snake is more a frog than rodent-eater, favouring water habitats, where it is a good swimmer.

In Bali, the author observed two specimens at 2200 hours sleeping in a tree at a height of approximately 2.5-3.5 m. Both snakes were separated about 1 m in height. The tree was overhanging a creek amid riverine vegetation. Paddy fields framed the river on both sides, thus the only place to find shelter was the riparian fringe with dense and diverse plants.

In summary, this is the third locality record for *Ptyas korros* in Indonesian Borneo after nearly a hundred years, while the species is yet to be recorded from Malaysian Borneo. Stuebing & Inger (1999) list at least 156 snake species for Borneo. Adding the recently described freshwater sea-snake *Hydrophis sibauensis* (Rasmussen et al., 2001) and *Ptyas korros*, Borneo's ophidian fauna now totals 158 species.

LITERATURE CITED

- Boulenger, G. A., 1893. *Catalogue of the Snakes in the British Museum*. Vol. I (Typhlopidae, Glauconiidae, Boidae, Ilysiidae, Uropeltidae, Xenopeltidae, and Colubridae Aglyphae). Longmans & Co., London. 440 pp.
- Cox, M. J., P. P. van Dijk, J. Nabhitabhata & K. Thirakhupt, 1998. *A Photographic Guide to Snakes and other Reptiles of Thailand and Southeast Asia*. Asia Books Co., Ltd., Bangkok. 144 pp.
- De Haas, C. P. J., 1950. Checklist of the snakes of the Indo-Australian Archipelago. *Treubia*, **20**: 511-625.
- De Rooij, N., 1917. *The Reptiles of the Indo-Australian Archipelago*. II Ophidia. E. J. Brill., Leiden. 331 pp.
- Haile, N. S., 1958. The Snakes of Borneo, with a key to the species. *Sarawak Museum Journal*, **8**: 743-771.
- Inger, R. F., 1966. *The Systematics and Zoogeography of the Amphibia of Borneo*. Field Museum Press, Chicago. 402 pp.
- Inger, R. F. & H. K. Voris, 1993. A comparison of Amphibian communities through time and from place to place in Bornean forests. *Journal of Tropical Ecology*, **9**: 409-433.
- Inger, R. F. & F. L. Tan, 1996. *The Natural History of Amphibians and Reptiles in Sabah*. Natural History Publ., Kota Kinabalu. 101 pp.
- Lim, B. L., 1956. The Natural Food of some Malayan Snakes. *Malayan Nature Journal*, **10**: 139-144.
- Lim, F. L. K., 1991. *Tales and scales*. - Graham Brush, Singapore. 94 pp.
- Manthey, U. & W. Grossmann, 1997. *Amphibien und Reptilien Südasiens*. Natur und Tier - Verlag, Münster. 512 pp.
- Murphy, J. C., H. K. Voris & D. R. Karns, 1994. A Field Guide to the Snakes of the Danum Valley, A Bornean Tropical Forest Ecosystem. *Bulletin of the Chicago Herpetological Society*, **29**: 133-151.
- Rasmussen, A., M. Auliya & W. Böhme, 2001. A new species of the snake genus *Hydrophis* (Serpentes: Elapidae) from a freshwater river in Borneo. *Herpetologica*, **57**: 23-32.
- Stuebing, R. B., 1991. A Checklist of the Snakes of Borneo. *Raffles Bulletin of Zoology*, **39**: 323-362.
- Stuebing, R. B., 1994. A Checklist of the Snakes of Borneo: Addenda and Corrigenda. *Raffles Bulletin of Zoology*, **42**: 931-936.
- Stuebing, R. B. & R. F. Inger, 1999. *A Field Guide to the Snakes of Borneo*. Natural Hist. Publ. (Borneo), Kota Kinabalu. 254 pp.
- Van Hoesel, J. K. P., 1959. *Ophidia Javanica*. Museum Zoologicum Bogoriense, Pertjetakan Archipel, Bogor. 188 pp.