

Short Communication

The first record of *Ophidascaris* (Nematode: Ascarididae) in the Asian rock python (*Python molurus molurus*) in Bangladesh

Dibyendu BISWAS^{1*}, Shubhagata DAS² and Md. Abdul ALIM²

¹Department of Medicine and Surgery, Faculty of Animal Science and Veterinary Medicine, Patuakhali Science and Technology University, Dumki, Patuakhali, Bangladesh

²Department of Pathology and Parasitology, Chittagong Veterinary and Animal Sciences University, Chittagong-4202, Bangladesh.

Accepted 14 November 2013

Nematodes were collected during a post-mortem examination of a wild Indian rock python, *Python molurus molurus*, and it was identified as *Ophidascaris* sp recently described in south Indian state, Kerala. This is the first record of *Ophidascaris* in Bangladesh, making it a new geographical record.

Key words: helminth, ascarids, *Ophidascaris*, python, Bangladesh

INTRODUCTION

The family Boidae contains the world's largest snake species, including pythons, boas, and anacondas. The family is subdivided into several subfamilies, with pythons belonging to the subfamily Pythoninae. Pythons (*Python molurus molurus*) are large non-venomous snakes found in tropical and subtropical areas of southern and Southeast Asia. They are generally omnivorous, but can be entirely carnivorous (Bogat 1974). In forests, their diet is largely restricted to small reptiles, birds, smaller mammals, and antelopes (Grzimek 1975). However, there are some cases of large pythons having eaten a human (<http://bbs.clutchfans.net/showthread.php?t=68762>).

The Asian rock python, *Python molurus*, has two subspecies: the Indian python, *p. m. molurus*, and the Burmese python, *p. m. bivittatus*. The lighter-colored Indian python is native to India, Pakistan, Sri Lanka, and Nepal. The darker-colored Burmese python ranges from Myanmar, eastward through southern Asia to

Southeastern China and Indonesia, excluding the island of Sumatra. These snakes are now endangered, although they remain numerous in hilly and deep forest areas of Chittagong, Bangladesh (<http://articles.orlandosentinel.com>), probably because of the availability of prey, such as frogs, mice, and other small animals. In different part of Chittagong, pythons are killed or captured near residences regularly, suggesting a shortage of food in the forest as a result of deforestation.

Parasitic infestations are not uncommon in wild animals, including snakes and reptiles. Although parasitic and other diseases of pythons and reptiles have been reported elsewhere (Sahoo *et al.* 2007; Sprent 1970), there are no reports of parasites or other diseases affecting snakes and reptiles in Bangladesh. Pythons may also harbor many worms, ticks, and *Filarial* sp. on the skin. This paper identified internal nematodes in Department of Parasitology and Pathology, Chittagong Veterinary Animal Science University, Chittagong (CVASU), Bangladesh which was collected from a dead python (*Python molurus molurus*) which was send by the Department of Forest, Chittagong, Bangladesh to SA Quaderi Teaching Veterinary Hospital, CVASU,

*Corresponding author: E-mail: dibyenducvasu@gmail.com.

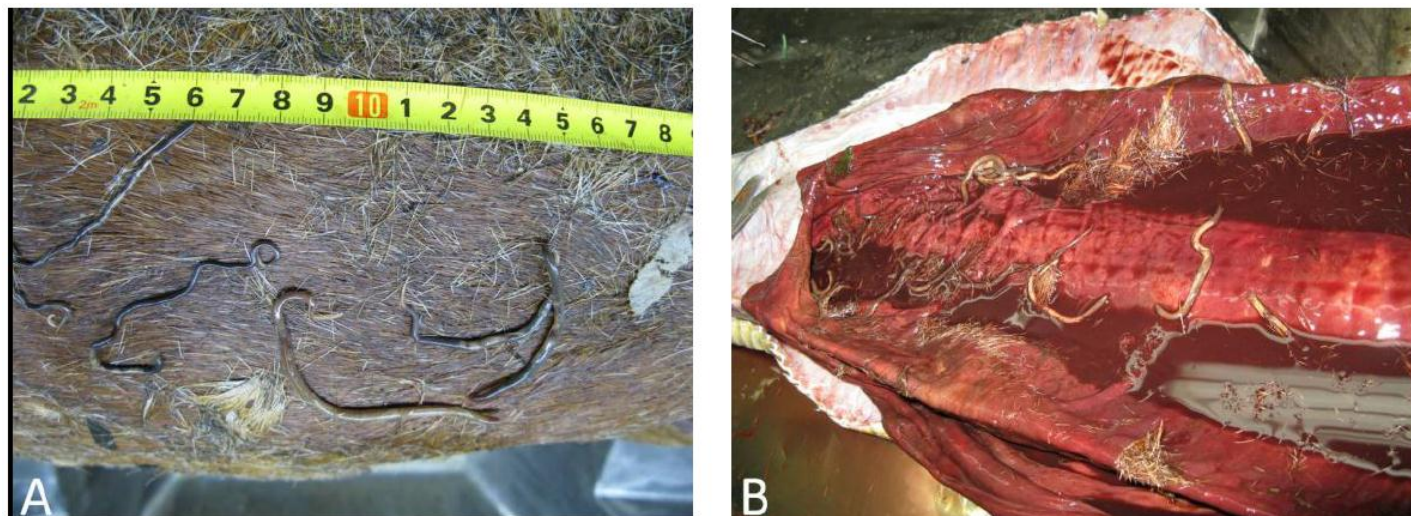


Figure 1: Adult *Ophidascaris* sp. are present onto swallowed deer (A) and in the abdominal cavity (B)

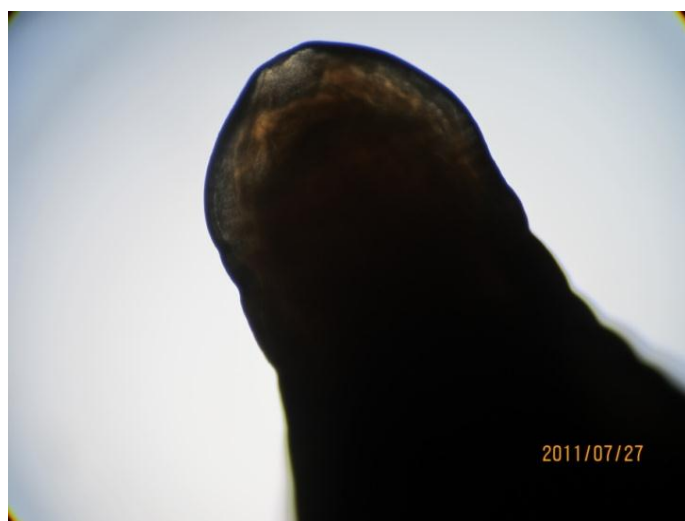


Figure 2: Mouth of the isolated *Ophidascaris* under teriomicroscope

Chittagong, Bangladesh.

MATERIALS AND METHODS

A dead female python about 5.0 m long was found in Kumira forest region, Chittagong, Bangladesh, and sent to SA Quaderi Teaching Veterinary Hospital, CVASU, Chittagong for post mortem examination, which was performed according to the method of Balasundara (Balasundara *et al.* 2012). The parasitology samples were collected only from the stomach, after removing a

dead deer. The stomach contents were washed with normal saline and sent to the Department of Pathology and Parasitology, CVASU, Bangladesh for identification. Specimens were preserved in 70% alcohol for further morphological investigation.

RESULTS AND DISCUSSIONS

A python that had swallowed a full-grown male deer was subsequently found to have a huge number of nematodes in its stomach (Figure 1). The collected nematodes were identified as *Ophidascaris* sp. The average length of the adult parasites was 14 cm (Figure 2). The mouth has a sucker similar to other nematodes (Fig. 3). Nematodes often cause gastrointestinal, hepatic, and renal lesions. *Ophidascaris* spp. have been identified from pythons in India, Southeast Asia, Australia, and Africa (Brar *et al.* 1990; McAllister *et al.* 1992; Sprent 1969).

The taxonomy of the genus *Ophidascaris* is unclear (Brar *et al.* 1990; Frye 1991; McAllister *et al.* 1992; Sprent 1969). The genus contains 25 known species, but only 2 have been studied in detail. Sprent (1970) reported that four species were found in pythons: *O. filaria*, *O. morliae*, *O. baylise*, and *O. infundibulum*. Our *Ophidascaris* specimens were short compared to other species. While dormant, adult *Ophidascaris* attach to the gut of the definitive host, but they can also be found intertwined with and feeding on ingesta. These parasites are occasionally found in clusters of up to 50 individuals with their heads buried in an elevated gastric nodule.

Our evidence suggests that the python is a normal host

of *Ophidascaris* sp. and in Bangladesh it is apparently a new geographic record.

ACKNOWLEDGMENT

The authors thank Dr. Md. Forhad Hossain, Additional Director, Department of Livestock Service, Chittagong, Bangladesh for sending this python for postmortem examination in this study.

REFERENCES

- Balasundara, K.R., Shekhya, G.N. and Konanur, J.A. (2012). Necrotic stomatitis and haemorrhagic enteritis in an Indian rock python. *Eurasian J. Vet. Sci.* 28 (1): 60-63.
- Bogat, C.M. (1974). Python. In: The encyclopedia Americanus, New York, International Edition, Americana Corporation, New York.
- Brar, R.S., Gupta, P.P. and Misri, J. (1990). Observation on the post-mortem lesions in two pythons. *Ind. Vet. J.*, 67(6): 573.
- Frye, F.L. (1991). Biomedical and surgical aspects of captive reptile husbandry. Krieger Publishing Company, Malabar, FL.
- Grzimek, B.H.C. (1975). BoiBds. Grzimek's animal life encyclopedia. Reptiles. New York, VNR, Company, New York.
- McAllister, C.T., Freed, P.S. and Freed, D.A. (1992). *Ophiotaenia ophioides* and *Ophidascaris* sp. in a Spotted Night Adder (*Causus maculatus*) from Cameroon, West Africa. *J. Wildlife Dis.* 28(4): 641-642.
- Sahoo, M., Mohapatra, H.K., and Parhi, N.K. (2007). Pathomorphological studies on Indian Rock python (*Python molurus molurus*) with parasitic infestation. *Ind. J. Vet. Pathol.* 31 (2): 175-177.
- Sprent, J.F.A. (1969). Studies on ascaridoid nematodes in pythons: speciation of *Ophidascaris* in the Oriental and Australian regions. *Parasitol.* 59: 937-959.
- Sprent, J.F.A. (1970). Studies on ascaridoid nematodes in pythons: the life history and development of *Ophidascaris moreliae* in Australian pythons. *Parasitol.* 60: 97-122.