

SHORT COMMUNICATION

INCIDENTAL POST-MORTEM FINDING OF THE BUFFALO LEECH IN THE LUNGS OF AN ESTUARINE CROCODILE

SUMMARY: The buffalo leech, *Hirudinaria manillensis*, was recovered from the lungs of an estuarine crocodile, *Crocodilus porosus*, which died at Zoo Negara from causes unrelated to its presence.

Keywords: *Hirudinaria manillensis*, lungs, *Crocodilus porosus*

INTRODUCTION

Leeches are soft-bodied, generally dorso-ventrally compressed, annelids that are well adapted for a predatory or sanguivorous mode of life. They are hermaphroditic and vary in size from a few mm to several cm in length. Leeches are mainly found in the tropics and subtropics and because of their avid blood-feeding habits, many species constitute a veritable scourge to man and animals. Terrestrial species such as *Haemadipsa zeylanica* and *Haemadipsa picta*, both of which are known from Peninsular Malaysia, are vicious blood-feeders. Many aquatic leeches, including species of *Dinobdella* and *Limnatis*, have been reported to occur in the nose, throat and vagina of horses, cattle, buffaloes and the nasopharynx of man (Sharma and Fernando, 1961; Hii *et al.*, 1978; Kadarsan, 1984).

In this report, the buffalo leech, *Hirudinaria manillensis*, a species that mainly attacks buffaloes, is reported from the lungs of an estuarine crocodile, *Crocodilus porosus*.

MATERIALS AND METHODS

An estuarine crocodile, *C. porosus* which had no previous report of adverse health, was found dead in the crocodile-enclosure at Zoo Negara. Gross physical examination showed that the carcass was in good condition.

During postmortem examination, a large live leech was seen partly extruding from the left nostril. The rest of the leech was in the larynx. The trachea had a few petechiae and the bronchus was clear. On incision of the bronchioles of the left lobule, a large dead leech was found in the alveoli. There was no pathological lesions noted in the other systems.

Cause of death was not attributed to the presence of the leeches but to pollution of the pool by oil.

RESULTS AND DISCUSSION

Both the leeches were similar. Unfortunately, the live leech was discarded. Although the dead leech had lost most of the body coloration, a broken line of dark pattern was present in the lateral aspect. The leech was about 12 cm. in length and about 1.7 cm. in breadth at its widest point. Using the descriptions in Harding and Moore (1927) and Keegan *et al.*, (1968), the leech was identified as *H. manillensis* (Lesson, 1842) Whitman, 1886 (Fig. 1). Four species of *Hirudinaria* are known: *H. granulosa*, *H. javanica*, *H. manillensis* and *H. viridis* (Harding and Moore, 1927). *H. manillensis* is the only species reported from Pen. Malaysia (Harrison, 1953; Sharma and Fernando, 1961). The following features will differentiate *H. manillensis* from the other three species: absence of vaginal stalk; vaginal

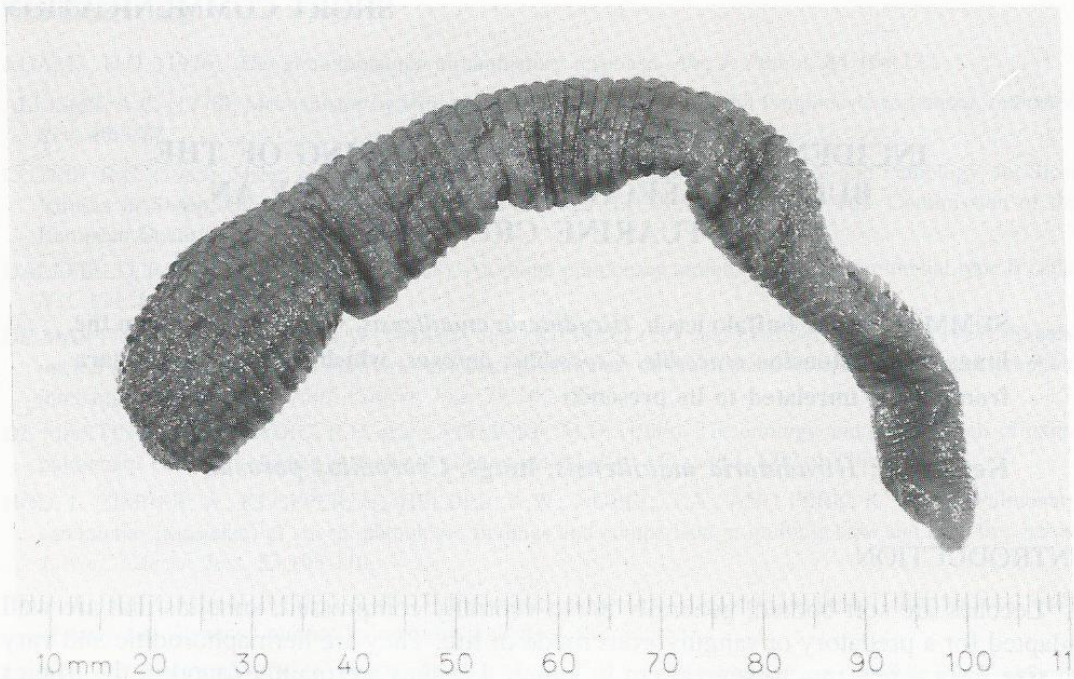


FIG. 1: Dorsal aspect of the buffalo leech, *Hirudinaria manillensis*, from the lungs of the estuarine crocodile, *Crocodilus porosus*

caecum and common oviduct opening directly into the bursa; male and female genital pores separated by five annuli; width of caudal sucker distinctly less than that of the body.

H. manillensis live in water and are abundant in swamps and rice-fields frequented by buffaloes. Their bite is severe and workers in rice fields have been bitten often (Tweedie and Harrison, 1977). Although the main victim of *H. manillensis* is the water buffalo, it has been seen attached to frogs, snakes and turtles (Harding and Moore, 1927). Boynton (1913) has shown that rinderpest may be transmitted to cattle by *H. manillensis*.

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RINGKASAN

PENEMUAN INSIDENTAL LINTAH KERBAU DALAM PARU-PARU

Penemuan insidental lintah kerbau, *Hirudinaria manillensis*, di dalam paru-paru buaya, *Crocodilus porosus*, semasa pemeriksaan post-mortem dibincangkan.