

Short Note

**Notes on Land Leeches Biology in Thailand
(Hirudiniformes: Haemadipsidae)**

**THONGCHAI NGAMPRASERTWONG, KUMTHORN THIRAKHUPT
AND SOMSAK PANHA***

Department of Biology, Faculty of Science, Chulalongkorn University, Bangkok, 10330, THAILAND

The haemadipsids are terrestrial blood-feeding leeches with an unusual biogeographic distribution; being found only in the Indian subcontinent, Southeast Asia, Wallacea, Australia, Melanesia, Madagascar, and the Seychelles but neither in Africa nor in South America^{1,2}. The nature of the global distribution of the haemadipsids has been cause for speculation regarding their evolutionary history since Whitman postulated a Tertiary origin in Northern India where freshwater lakes were thought to have been drained by the Himalayan uplift³. These animals are well known to the travelers all over Thailand. Leeches scare people and some private companies have been making various repellents. However there are few recommended products for the forest visitors so far. There are only two papers reporting on two species of Thai land leeches, one by Moore (1935)⁴ and one by Keegan *et al.*, (1968)⁵. They are *Haemadipsa sylvestris* Blanchard, 1894 and *H. zeylanica* (Moquin-Tandon, 1826).

We have surveyed for land leeches in Thailand from July 1998 to December 2000. We found 5 species from 2 genera. They are *Haemadipsa picta* Moore, 1929, *H. sylvestris* Blanchard, 1894, *H. zeylanica* (Moquin-Tandon, 1826), *Tritetrabdella scandens* Moore, 1938, and *T. taiwana* (Oka, 1910). Two distinct

morphs among *H. sylvestris* and *H. zeylanica* were identified. There is a high possibility to find some new taxa from further surveys⁶. Type materials are now being studied by the senior author at the Natural History Museum, London.

We have also investigated the relationship between observed abundances of *H. zeylanica* and physical factors at Khao Yai National Park. We found that rainfall, temperature and relative humidity are positively correlated with observed abundances whereas ground cover percentage was negatively correlated. Seasonal change strongly effected the number and dispersion of land leeches. In the dry season, few are found and their distribution was clumped, while in the rainy season, many of them are found and they are widely distributed. Cocoon deposition occurred during the early rainy season from May to June.

ACKNOWLEDGEMENTS

We would like to thank Dr. Chumpol Sukasem for the kind help throughout the study in Khao Yai National Park. We also thank for Dr. Harold Voris for his kind critical reading the manuscript. This research was supported by a grant from the Biodiversity Research and Training Program in Thailand (BRT-542039).

*Corresponding author:

Tel & Fax: (662) 218-5273

Email: somsakp@sc.chula.ac.th

LITERATURE CITED

1. Moore, J. P. 1927. Arhynchobdellae. In : W. A. Harding and J. P. Moore (eds.). The Fauna of British India: Hirudinea, pp. 97-295. Taylor and Francis, London.
2. Moore, J. P. 1944. Leeches in the British Museum, mostly Haemadipsinae from the south Pacific with descriptions of new species. Ann. Mag. Nat. Hist., 11: 389-409.
3. Richardson, L. R. 1978. On the zoological nature of land-leeches in the Sechelles Islands, and a consequential revision of the status of the leeches in Madagascar (Hirudinea: Haemadipsidae). Rev. Zoo. Afr., 92: 837-866.
4. Moore, J. P. 1935. Leeches from Borneo and the Malay Peninsula. Bull. Raffles. Mus. 10: 67-79.
5. Keegan, H. L., Toshioka, S. and Suzuki, H. 1968. Blood sucking Asian leeches of families Hirudidae and Hemadipsidae. 406th Med. Lab. Spec. Report, July 1968, US Army Medical Command, Japan.
6. Ngamprasertwong, T. 2001. Species diversity, distribution and effects of physical factors on populations of haemadipsids land leeches in Thailand. Master Thesis in Zoology, Faculty of Science, Chulalongkorn University (In Thai with English Abstract).

Received: 6 September 2005

Accepted: 20 October 2005