



New record of (*Haemadipsa zeylanica montivindicis*) Moore 1927 from the Nilgiris of Western Ghats

KAYALVIZHI. R¹, J.EBANASAR^{*2}, B.D SHEEJA³ and DHOTTAMMA. P⁴

¹ Ph.D. Research Scholar, Department of Zoology Government Arts College, Udthagamandalam- 643002 Tamil Nadu India.

² Associate Professor and Head, Department of Zoology Government Arts College, Udthagamandalam- 643002 Tamil Nadu, India.

³ Assistant Professor, Department of Botany Government Arts College, Udthagamandalam- 643002 Tamil Nadu, India.

⁴ Ph.D. Research Scholar, Department of Zoology Government Arts College, Udthagamandalam- 643002 Tamil Nadu, India.

*Corresponding Author- ebanasar@gmail.com

ABSTRACT

A new record of *Haemadipsa zeylanica montivindicis* is described from Upper Nilgiris. The leech was identified by using the identification key published by Magesh Chandra,(1991) and the distribution of leeches by following Mandal *et al.*,(2022). The *H. zeylanica montivindicis* is newly added to the Nilgiris leech fauna which belongs to the family *Haemadipsidae* and order Arhynchobdella. It is a common parasite of reptiles and mammals including human beings. The described species were collected from the Southwest monsoon. The key features of identification are discussed with the help of previous literature.

Keywords: Leech, *Haemadipsa zeylanica montivindicis* sp. Nilgiris.

Introduction

More than 700 species of leeches are found in the world, distributed in 91 genera and 7 families (Sket and Trontelj, 2008). Blanchard (1917) was the first to describe two terrestrial leeches from India. Bandyopathy and Mandal (2006) recorded new terrestrial leeches from Tamil Nadu. Still, 82 leech species under 25 genera and 6 families have been recorded from India (Mandal *et al.*, 2022). *Haemadipsa* species are truly land leeches with high biodiversity in tropical regions with high humidity, *Haemadipsa* sp. is mostly found in Southwest Asia (Ngamprasertwong *et al.*, 2007). However, *Haemadipsa zeylanica montivindicis* was not previously recorded from the Nilgiris biosphere reserve. In the present study, the *Haemadipsa zeylanica montivindicis* is reported for the first time. Comparison with other references has concluded the presence of the species *H. zeylanica montivindicis* which clearly illustrates the first record from the higher humidity climates of Nilgiris.

Materials and methods

A survey of leeches was carried out from Nadugani with a latitude(11°28'18,53"N) and longitude (76°24'38,47"E) and Devala with a latitude (11°28'55,73"N) and longitude (76°22'47,59"E) and other areas of upper Nilgiris. They were collected from the natural habitat of the plain land, mountains, tea plantation, and human habitation. It is collected from the natural microhabitat by making thoroughly searching under rocks, soil, sticks, grazing lands, and decaying leaves and also sitting and standing for a long time in a place to attract leeches, and also walking in the leech habitat with bare foot by splashing movement. Ten leeches were collected and transformed into a container with a little amount of water to keep them in a moist condition; the collected specimen was kept in the laboratory. The identification of these land leeches was made with help of the microphotography (Olympus model i39) and the key was identified by using "Handbook: leeches of India" by Mahesh Chandra (1991), Mandal *et al.*, (2022).

Description of *H. zeylanica montivindics*

Size: Size small slender, cylindroid tapering from the broad sucker pedicel to head. **Colour:** Colour is Olive brown, reddish brown, or yellowish brown. Mid-dorsal field paler with a continuous dark brown or median line.

Eyes: Third and fourth pairs of eyes usually on contiguous annuli

Black spots are absent. Round pale yellow cream colours are present in the para median and intermediate sensillae. Marginal strips of yellow or cream colored or white. Sucker rays 69-76. The length of the specimens ranged from 2cm to 3cm.



H.zeylanica montivindics

Table:1 Comparison of Characteristics of *H.zeylanica montivindics* with other species of *Haemadipsidae*

S.No	<i>Haemadipsa zeylanica montivindics</i>	<i>Haemadipsa zeylanica cochinata</i>	<i>Haemadipsa zeylanica agilis</i>	<i>Haemadipsa zeylanica Zeylanica</i>
1	Size small, very slender, cylindroid	Size small, slender, cylindroid	Size small, slender, cylindroids	Size small, very slender, cylindroid
2	Sucker broad sucker pedicel to head	Sucker prehensile sucker papilla large and prominent	Sucker broad sucker pedicel to head	Sucker broad sucker pedicel to head
3	Colour olive brown reddish brown or yellowish brown.	Colour Pattern mottled with black above and below	Colour light olive, yellowish-olive, or brown with	Colour variable ground colour reddish brown
4	Mid-dorsal field paler continuous dark brown or black median line	No paler median Constantly a median dorsal dark sight Large Size of prehensile papilla being a large	broad dorsal paler field and continuous median black or dark brown line.	mottled or flecked with black and dorsal yellow or greenish-yellow lines.

5	Rounded pale yellow or cream colour spots include the para median intermediate sensillae.	Triangular Sharpe pointed process strongly hooked being a prement.	Marginal stripes pale yellow, white, or even slivery	Marginal stripes pale yellow. Caudal sucker
6	Sucker Rays 69-76			Sucker rays 71-73.

Host and Habitat

H. zeylanica montivindics occur in grazing, decaying plant materials, dampy forests, attached animal skins, and human beings' skins.

Conclusion

From the information, and by comparison of the checklist of other species it is concluded that *H. zeylanica montivindics* species occur in the upper Nilgiris and it is documented for the first time by the present investigation.

References

1. Chandra, M. 1991. A checklist of leeches. *Rec. Zoological Survey of India*, 80(3 &4): 256-290.
2. Blanchard, R. 1917. Monographie des Haemadipsines (sangsues terrestres). *Bulletin. de la Societe. Pathologie Exotique*, 10: 640-675.
3. Mandal, C.K. 2006. On some leeches of Arunachal Pradesh, India (in press).
4. Mandal C.K 2022. Record Of Leech (Annelida: *Hirudinida*) Fauna Of Chotanagpur *Deccan Plateau, India*. Vol pp 21-31.
5. Moore, J.P. 1927. Fauna of British India, Hirudinea. London: Taylor & Francis, pp. 185–189.
6. Sket B. Trontelj P. 2008: Global diversity of leeches (Hirudinea) in freshwater. *Hydro biologia* 595: 129–137.
7. Bandyopadhyay, P.K. and Mandal, C.K. 2006. Studies on a new species (*Haemadipsa kodaiensis*) of leech of the Genus *Haemadipsa* from the kodair forest of Tamil Nadu. *Rec. Zool. Surv. India*, 106 (part-1): 33-37.
8. Ngamprasertwong, T. K. Thirakhupt and S. Panha. 2007. Two new species of land leeches from Thailand (Hirudiniformes: Haemadipsidae). *The Natural History Journal of Chulalongkorn University* 7: 155-159.