

A CHECK-LIST OF LEECHES OF INDIA

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INTRODUCTION

In the Fauna of British India-Hirudinea, Harding and Moore (1927) have recorded 38 species and 6 subspecies of leeches from the present geographical limits of India (excluding Pakistan, Sri Lanka, Bangladesh and Burma). Since then, 16 more species have been added to the Indian leech fauna by Bhatia (1930, 1934 and 1939), Chelladurai (1934), Sanjeeva Raj (1951 and 1974) and Baugh (1960); and the distribution of a number of species have been extended to various parts of the country by them. The two species, *viz.*, *Glossiphonia complanata* Linnaeus and *Glossiphonia weberi* Blanchard are reduced to subspecific level by Soos (1969). Recently Soota (1956), Chandra (1966, 1976a, b, c and 1977) and Julka and Ghosh (1976) have considerably increased the distributional records of a number of species from Kashmir Valley; Maharashtra; Rajasthan; Himachal Pradesh and Chhota Nagpur (Bihar) and Indian Coasts.

The present check-list deals with 52 species and 8 subspecies so far known from the Indian region. The species are arranged in the systematic order. The original and the latest references along with important synonyms have been mentioned under each species. The type-locality and type-depository has also been given. The distribution of each species in India as well as outside India has been mentioned. The works of Harding & Moore (1927), and Soos (1966, 1967a, 1967b, 1967c, 1969) have been followed for the preparation of keys for identification.

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KEY TO THE IDENTIFICATION OF INDIAN LEECHES

KEY TO INDIAN ORDERS

- A. Jawless : proboscis present ; strictly parasitic ;
freshwater and marine forms. ... RHYNCHOBDELLAE
- B. Jawed ; without proboscis ; sanguivorous ;
freshwater and terrestrial forms. ... ARHYNCHOBDELLAE

KEY TO THE INDIAN FAMILIES OF RHYNCHOBDELLAE

- A. Body cylindrical or flattened ; usually divided
into distinct anterior and posterior regions ;
anterior sucker generally cupuliform or discoid
distinct from the body ; sometimes with paired
lateral branchiae or pulsating vesicles. ... PISCICOLIDAE
- B. Body ovate and flattened ; Anterior sucker
ventral and fused with the body ; lateral bran-
chia and pulsating vesicles absent. ... GLOSSIPHONIDAE

KEY TO THE INDIAN SPECIES OF FAMILY PISCICOLIDAE

1. Eyes absent ; lateral branchiae and pulsating
vesicles absent. ... 2
Eyes present ; lateral branchiae or pulsating
vesicles present. ... 4
2. Body divided into distinct regions. ... 3
Body not divided into distinct regions ... *Piscicola caeca*
3. Body divided into three distinct regions of
which anterior two are provided with fin-like
processes, tubercles absent. ... *Pterobdella amara*
Body divided into two distinct regions ;
lateral fin-like processes absent, tubercles
present. ... *Pontobdellina macrothela*
4. Eyes one pair. ... 5
Eyes 2 pairs. ... *Piscicola olivacea*
5. Lateral branchiae present, pulsating vesicles
absent. ... 6
Lateral branchiae absent, pulsating vesicles
present. ... *Zeylanicobdella arugamensis*
6. Posterior region with less than eleven pairs of
branchiae. ... 7
Posterior region with eleven or more than
eleven pairs of branchiae. ... 8
7. 5 pairs of branchiae. ... *Ozobranchus margo*
7 pairs of branchiae. ... *Ozobranchus branchiatus*
8. Branchiae more than 20 pairs. ... *Branchellion plicobranchus*
Branchiae 20 or less than 20 pairs. ... 9

- | | | | |
|----|------------------------|-----|---------------------------------|
| 9. | 11 pairs of branchiae. | ... | <i>Ozobranchus shipleyi</i> |
| | 20 pairs of branchiae. | ... | <i>Ozobranchus polybranchus</i> |

KEY TO THE INDIAN SPECIES OF FAMILY GLOSSIPHONIDAE

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|-----|---|-----|-------------------------------|----|
| 1. | Eyes less than four pairs. | ... | ... | 2 |
| | Eyes four pairs. | ... | ... | 18 |
| 2. | Mouth opening subterminal in the anterior sucker. | ... | ... | 8 |
| | Mouth opening in the middle of the anterior sucker. | ... | ... | 8 |
| 3. | Eyes one pair. | ... | ... | 4 |
| | Eyes three pairs. | ... | ... | 6 |
| 4. | Eyes on ring three. | ... | <i>Placobdella emydae</i> | |
| | Eyes on ring two. | ... | ... | 5 |
| 5. | Male gonopore between rings 24 and 25 ; total number of rings. 66. | ... | <i>Placobdella horae</i> | |
| | Male gonopore between rings 25 and 26 ; total number of rings 70. | ... | <i>Placobdella indica</i> | |
| | Male gonopore between rings 26 and 27 ; total number of rings 71. | ... | <i>Placobdella undulata</i> | |
| 6. | Crop with seven pairs of lateral diverticula. | ... | <i>Placobdella ceylanica</i> | |
| | Crop with more than seven pairs of lateral diverticula. | ... | ... | 7 |
| 7. | Eyes on rings 3, 4 and 7 ; male gonopore between rings 29 and 30. | ... | <i>Paraclepsis praedatrix</i> | |
| | First two pairs of eyes on ring 2, third pair on ring 5 ; male gonopore between rings 27 and 28. | ... | <i>Paraclepsis vulnifera</i> | |
| 8. | Eyes one pair. | ... | ... | 9 |
| | Eyes more than one pair. | ... | ... | 10 |
| 9. | Dorsal scute between ring 12 and 13 present ; eyes on ring 3 ; male gonopore between rings 24 and 25. | ... | <i>Helobdella stagnalis</i> | |
| | Dorsal scute absent ; eyes on ring 4 ; male gonopore between rings 28 and 29. | ... | <i>Helobdella nociva</i> | |
| 10. | Crop with 6 or 7 pairs of lateral diverticula. | ... | ... | 11 |
| | Crop with 9 or more than nine pairs of lateral diverticula. | ... | ... | 15 |
| 11. | Crop with 6 pairs of lateral diverticula. | ... | ... | 12 |
| | Crop with 7 pairs of lateral diverticula. | ... | ... | 13 |

12. First and second pairs of eyes on ring three,
third pair on ring four. ... *Glossiphonia complanata complanata*
- First and second pairs of eyes on ring four,
third pair on ring five. ... *Glossiphonia annandalei*
- First, second and third of eyes on ring 3, 4
and 5. ... *Glossiphonia cruciata*
- First, second and third pair of eyes on ring
5, 7 and 8. ... *Glossiphonia heteroclita*
- First, second and third pair of eyes on ring 6,
7 and 8. ... *Glossiphonia weberi weberi*
13. Head separated from body by necklike constrict-
tion ; Gonopores separated by two rings ; eye
two pairs. ... 14
- Head not separated from body by necklike
constriction ; gonopores separated by one and
half ring ; eyes three pairs. ... *Batracobdella hardingi*
14. First pair of eye between ring 2 and 3 and
second pair on ring 5. ... *Batracobdella lobata*
- First pair of eye on ring 2 and second pair on
ring 3. ... *Batracobdella mahabiri*
- First pair of eye on ring 4 and second pair on
ring 5. ... *Batracobdella reticulata*
15. Three pair of eyes ; cephalic region not
dialated. ... 16
- Two pair of eyes ; cephalic region dialated. ... 17
16. Eyes on ring 2, 3 and 5 ; gonopores separated
by one and a half rings. ... *Hemiclepsis bhatiai*
- Eyes on ring 3, 4 and 6 ; gonopores separated
by two rings. ... *Hemiclepsis viridis*
17. Total number of rings 67. ... *Hemiclepsis marginata marginata*
- Total number of rings 72. ... *Hemiclepsis marginata asiatica*
18. Eyes on ring 2, 4, 7 and 10. ... *Theromyzon sexoculata*
- Eyes on ring 3, 5, 8 and 11. ... *Theromyzon mathai*

KEY TO THE INDIAN FAMILIES OF ORDER ARHYNCHOBDELLAE

1. Eyes never arranged in a regular arch on
contiguous somites. ... ERPOBDELLIDAE
- Eyes forming always a regular arch on con-
tiguous somites. ... 2
2. Third and fourth pair of eyes on contiguous
annuli ; terrestrial forms. ... HAEMADIPSIDAE
- Third and fourth pair of eyes separated by an
annulus ; aquatic. ... HIRUDIDAE

EYE TO THE INDIAN SPECIES OF FAMILY ERPOBDELLIDAE

1.	No dorsal canal from stomach to exterior.	...	...	2
	Dorsal canal from stomach to exterior present.	...		
			<i>Foraminobdella heptamerata</i>	
2.	No accessory post-cephalic eyes.	...	...	3
	Accessory post-cephalic eyes present.	...	...	5
3.	Eyes four pairs.	...	...	4
	Eyes three pairs.	...	<i>Barbronia weberi</i>	
4.	Gonopores separated by three rings.	...	<i>Erpobdella octoculata</i>	
	Gonopores separated by four rings.	...	<i>Erpobdella indica</i>	
5.	First pair of eyes on somite three ; gonopores separated by two to three rings.	...	<i>Herpobdelloidea lateroculata</i>	
	First pair of eyes on somite four ; gonopores separated by five rings.	...	<i>Nematobdella indica</i>	

KEY TO THE SPECIES OF FAMILY HIRUDIDAE

1.	Jaws small and weak.	...	...	2
	Jaws well developed.	...	...	4
2.	Head not attenuated, stomach caecate, somite imperfectly 5 annulate.	...	<i>Myxobdella annandalei</i>	
	Head attenuated, stomach caecate, somite perfectly 5 annulate.	...	...	3
3.	Teeth coarse and all distichous.	...	<i>Haemopsis indica</i>	
	Teeth imperfect in two series.	...	<i>Whitmania laevis</i>	
4.	Teeth absent or vestigial.	...	...	5
	Teeth well developed.	...	...	6
5.	Caudal sucker equal or exceeding body width....		<i>Dinobdella ferox</i>	
	Caudal sucker much less than body width.	...	<i>Dinobdella notata</i>	
6.	Salivary papillae on jaws absent or rarely a few very small ones ; median ventral fissure on lip absent.	...	...	7
	Salivary papillae on jaws numerous and large ; median ventral fissure on lip present.	...	...	8
7.	Colour uniform ; no metameric spots.	...	<i>Hirudo asiatica</i>	
	Colour pattern longitudinally striped ; metameric spots present.	...	<i>Hirudo birmanica</i>	

8.	Vaginal stalk absent.	...	...	9
	Vaginal stalk well-developed.	...	...	10
9.	Gonopores separated by seven annuli.	...	<i>Poecilobdella javanica</i>	
	Gonopores separated by five annuli.	...	<i>Poecilobdella manillensis</i>	
10.	Vaginal stalk about equal in length to caecum.	...	<i>Poecilobdella granulosa</i>	
	Vaginal stalk about twice the length of caecum.	...	<i>Poecilobdella viridis</i>	

KEY TO THE INDIAN SPECIES OF FAMILY HAEMADIPSIDAE

1.	Somite VII 3-annulate and VIII 4-annulate.	...	2
	Somite VII 4-annulate and VIII 5-annulate.		<i>Haemadipsa dussumieri</i>
2.	Furrow pits obscure, when present on IX to XII ; Prehensile papilla on caudal sucker well developed.	...	3
	Furrow pits evident, on VIII to XI ; prehensile papilla on caudal sucker little developed.	...	5
3.	Eyes 3 and 4 on contiguous annuli.	...	4
	Eyes 3 and 4 separated by a complete or partial annulus.	...	<i>Haemadipsa montana</i>
4.	Colour pattern mottled with black above and below ; a black or dark stripe constant, no paler median dorsal field.	...	<i>Haemadipsa zeylanica cochiniiana</i>
	A median dorsal yellow or greenish yellow line, colour reddish brown or orange mottled with black.	...	<i>Haemadipsa zeylanica zeylanica</i>
	A median dorsal black or dark line in paler median field ; ground colour variable with dark blotched spots.	...	<i>Haemadipsa zeylanica agilis</i>
	A median dorsal black or dark-line in a paler median field ; ground colour variable, dark spots or blotches absent or obscure.	...	<i>Haemadipsa zeylanica montivindicis</i>
5.	Colour brown with usually three black dorsal stripes ; sucker rays usually 74-76.	...	<i>Haemadipsa sylvestris</i>
	Colour velvety black alternating with cream or pale yellow stripes ; venter red ; sucker usually 86-94.	...	<i>Haemadipsa ornata</i>

CHECK LIST

Class : HIRUDINEA
 Order : RHYNCHOBDELLAE
 Family : PSCICOLIDAE
 Genus : **Ozobranchnus** de Quatrefagus, 1852

Ozobranchnus shipleyi Harding

1909. *Ozobranchnus shipleyi* Harding, *Proc. Camb. Phil. Soc.* 25 : 233. (Type-
 Locality : Sri Lanka ; Type-Deposited : Not known).
 1921. *Ozobranchnus jantseanus* Kaburaki, *Mem. Indian Mus.*, 5 (9) : 661.
 1921. *Ozobranchnus papillatus* Kaburaki, *Rec. Indian Mus.*, 22 (5) : 689.
 1958. *Ozobranchnus shipleyi*, Sanjeeva Raj, *J. Bombay nat. Hist. Soc.*, 52 : 476.

Distribution : India : Sambalpur (Orissa) ; River Ganges (West Bengal). Out side India : Pakistan.

Habitat : Marine and freshwater forms, parasitic on turtle and tortoises.

Ozobranchnus polybranchus Sanjeeva Raj

1951. *Ozobranchnus polybranchus* Sanjeeva Raj, *J. zool. Soc. India*, 3 (1) : 1-5. (Type-
 Locality : Porto Novo, Tamil Nadu ; Type-Deposited : Z. S. I.).
 1954. *Ozobranchnus polybranchus* Sanjeeva Raj, *J. Bombay nat. Hist. Soc.*, 52 : 477.

Distribution : India : Porto-Novo (Tamil Nadu).

Habitat : Marine form, parasitic on turtles.

Ozobranchnus margoii (Apathy)

1890. *Pseudobranchellion margoii* Apathy, *Orvos-terres-zettud Ertesitte*, 15 : 110-113,
 122-127 (Type-Locality : Bay of Naples ; Type-Deposited : Not known).
 1974. *Ozobranchnus margoii*, Sanjeeva Raj, *J. Mar. biol. Ass. India*, 16 (2) : 381-397.

Distribution : India : Bay of Bengal at Ennore (Tamil Nadu).
 Outside India : Japan and South America.

Habitat : Marine form ; parasitic on fishes.

Ozobranchnus branchiatus (Manzies)

1869. *Eubranchnella branchiatus* Baird, *Proc. Zool. Soc. Lond.* 310-318. (Type-Locality
 and Type-Deposited : Not Known).
 1974. *Ozobranchnus branchiatus* Sanjeeva Raj, *J. mar. biol. Ass. India*, 16 (2) : 381-397.

Distribution : India : Pirotan Island, Gulf of Kutch (Gujarat) ;
 Pulicate Lake, Bay of Bengal (Tamil Nadu). Outside India : South
 China seas and Florida.

Habitat : Parasitic on fishes.

Genus : **Branchellion** Savigny, 1822

Branchellion plicobranchus Sanjeeva Raj

1953. *Branchellion plicobranchus* Sanjeeva Raj, *Curr. Sci.*, **22** : 310 (Type-Localities : Assumption Island, Bay of Bengal (Tamil Nadu) ; Type deposited : Not known).
1974. *Branchellion plicobranchus* Sanjeeva Raj, *J. Mar. biol. Ass. India*, **16** (2) : 381-397.

Distribution : India : Assumption Island, Bay of Bengal and fish market, Madras (Tamil Nadu) ; Vizagapatam (Andhra Pradesh) ; Quillon (Kerala) and Bombay (Maharashtra).

Habitat : Parasitic on marine fishes.

Genus : **Pontobdellina** Harding, 1927

Pontobdellina macrothela Schmarda

1861. *Pontobdella macrothela* Schmarda, *Neue Wirbellose Thiere*, **1** : 2, Fol. Leipzig. (Type-Localities : Kingston, Jamaica ; Type-Deposited : Not known).
1927. *Pontobdellina macrothela*, Harding, *Fauna Brit. India*, Hirudinea, 45-48.

Distribution : India : Off Gopalpur (Orissa). Outside India : Sumatra, Australia, Jamaica and New South Wales.

Habitat : Marine form ; parasitic on fishes.

Genus : **Piscicola** de Blainville, 1818

Piscicola olivacea Harding

1920. *Piscicola olivacea* Harding, *Mem. Indian Mus.*, **5** : 510. (Type-Localities ; Chilka Lake, Orissa ; Type-Deposited : Not known).
1927. *Piscicola olivacea* Harding, *Fauna Brit. India*, Hirudinea, 48-52.

Distribution : Chilka Lake (Orissa). Outside India ; China.

Habitat : Brackish-water form ; parasitic on fishes.

Piscicola caeca Kaburaki

1921. *Piscicola caeca* Kaburaki, *Mem. Indian Mus.*, **5** : 661. (Type-Localities : Chilka Lake, Orissa ; Type-Deposited : Not known).
1927. *Piscicola caeca*, Harding, *Fauna Brit. India*, Hirudinea, 52-53.

Distribution : India : Chilka Lake (Orissa).

Habitat : Brackish-water form, parasitic on fishes.

Genus : **Pterobdella** Kaburaki, 1921**Pterobdella amara** Kaburaki

1921. *Pterobdella amara* Kaburaki, *Mem. Indian Mus.*, 5 : 668. (Type-Locality : Chilka Lake, Orissa ; Type-Deposited : Not known).
 1927. *Pterobdella amara*, Harding, *Fauna Brit. India*, Hirudinea, 54-56.

Distribution : India : Chilka Lake (Orissa).

Habitat : Brackish-water form, parasitic on fishes.

Genus : **Zeylanicobdella** De Silva, 1963**Zeylanicobdella arugamensis** De Silva

1963. *Zeylanicobdella arugamensis* De Silva, *Spolia zeylan*, 30 (1) : 47-53. (Type-Locality : Sri Lanka ; Type-Deposited : Ceylon Museum).
 1974. *Zeylanicobdella arugamensis*, Sanjeeva Raj. *J. Mar. biol. Ass. India*, 16 (2) : 381-397.

Distribution : India : Pulicate Lake, Bay of Bengal (Tamil Nadu).
 Outside India : Sri Lanka and Malaysia.

Habitat : Brackish-water forms, parasitic on fishes.

Family : GLOSSIPHONIDAE

Genus : **Glossiphonia** Johnson, 1816**Glossiphonia annandalei** Oka

1922. *Glossiphonia annandalei* Oka, *Rec. Indian Mus.*, 24 (4) : 521. (Type-Locality : Inle Lake, Burma ; Type-Deposited : Not known).
 1927. *Glossiphonia annandalei*, Harding, *Fauna Brit. India*, Hirudinea, 65-68.
 1969. *Glossiphonia annandalei*, Soos, *Acta. zool. hung.*, 15 : 397-454.
 1976. *Glossiphonia annandalei*, Chandra, *Rec. zool. Surv. India*, 69 : 325-328.

Distribution : India : Jaisalmer (Rajasthan) ; Satara, Kolhapur (Maharashtra) ; Chilka Lake (Orissa). Outside India : Burma.

Habitat : Freshwater form ; occurs in lakes, tanks and pools, attached to submerged articles parasitic on molluscs.

Glossiphonia complanata complanata (Linnaeus)

1758. *Hirudo complanata* Linnaeus, *Systema Naturae*, 10th. ed. 650. (Type-Locality and Type-Deposited : Not known).
 1816. *Glossiphonia tuberculata* Johnson, *Treatise On the Medicinal Leech*, 8, London.
 1822. *Clepsine complanata* Savigny, *Systema des Annelides*.
 1872. *Clepsine pallida* Verrill, *Rept. US. Fish Commissioner for 1872-1873*, 2 : 667.

1900. *Glossiphonia elegans* Castle, *Bull. Mus. Comp. zool. Harv.* **36** (2) : 667.

1927. *Glossiphonia complanata* Harding, *Fauna Brit. India*, Hirudinea, 57-60.

1969. *Glossiphonia complanata complanata*, Soos, *Acta zool. hung.*, **15** : 397-454.

Distribution : India : Srinagar (Jammu and Kashmir). Outside India : Japan, U. S. A. and Europe.

Habitat : Freshwater forms, occurs in tanks, ponds and slow moving streams, parasitic on molluscs.

Glossiphonia cruciata Bhatia

1930. *Glossiphonia cruciata* Bhatia, *Annl. Parasit. hum. comp.*, **8** : 344-348. (Type-Localities : Achabal, Kashmir ; Type-Deposited ; Not known).

1966. *Glossiphonia cruciata*, Soos, *Annl. hist. -nat. Mus. natn. hung.*, **58** : 271-279.

Distribution : India : Achabal (Jammu and Kashmir).

Habitat : Lakes and ponds, free-living or attached to submerged articles.

Glossiphonia heteroclita (Linnaeus)

1761. *Hirudo heteroclita* Linnaeus, *Fauna Suecica*, 2nd. ed. (Type-Localities and Type-Deposited : Not known).

1805. *Hirudo pappilosa* Brawn, *Systematische Beschreibung Egelarten*, 40, Berlin.

1826. *Clepsine carenae* Moquin-Tandon, *Monographie de la famille des Hirudinees*, 40, Montpellier.

1894. *Glossiphonia heteroclita*, Blanchard, *Boll. Mus. Zool.*, Torino, **9** (192).

1927. *Glossiphonia heteroclita*, Harding, *Fauna Brit. India*, Hirudinea, 60-62.

1976. *Glossiphonia heteroclita* Mahajan & Chandra, *Rec. zool. Surv. India*, **71** : 143-148.

Distribution : India : Nagaur (Rajasthan) ; Monghyr (Bihar). Outside India : North America, Europe and Burma.

Habitat : Lakes and ponds, free living or attached to submerged articles, parasitic chiefly on molluscs.

Glossiphonia weberi weberi Blanchard

1897. *Glossiphonia weberi* Blanchard, *Zool. Ergeb. einer Reise in Niederlandische Ost-Indian*, Max Weber, **4** : 332. (Type-Localities : Sumatra ; Type-Deposited : Not known).

1927. *Glossiphonia weberi*, Harding, *Fauna Brit. India*, Hirudinea, 62-65.

1969. *Glossiphonia weberi weberi*, Soos, *Acta. zool., hung.* **15** : 397-454.

1977. *Glossiphonia weberi*, Chandra, *Rec. zool. Surv. India*, **73** (1-4) : 189-195.

Distribution : India : Harwan (Jammu and Kashmir) ; Sirmour, Solan, Bilaspur (Himachal Pradesh) ; Bhim Tal, Gurud Tal, Naini Tal

(Uttar Pradesh) ; Jodhpur, Bikaner (Rajasthan) ; Hoshangabad (Maharashtra) ; Bangalore (Karnatak) ; Bushampur, Sangur (Madhya Pradesh) ; Chhota Nagpur (Bihar) ; Diamond Harbour, Calcutta, Hooghly (West Bengal) ; Mangaldai (Meghalaya) ; Loktak Lake (Manipur) ; Cuttack, Puri, Chilka Lake (Orissa).

Out side India : Pakistan, Nepal, Burma and Sumatra.

Habitat : Lakes, tanks, pools and slow moving streams, free-living or attached to sub-merged, parasitic on molluscs and aquatic beetles.

Genus : **Batracobdella** Viguer, 1879

Batracobdella hardingi Baugh

1960. *Batracobdella hardingi* Baugh, *Parasitology*, **50** : 287-301. (Type-Locality : Monghyr, Bihar ; Type-Deposited : Z. S. I.).

1966. *Batracobdella hardingi*, Soos, *Annls hist.-nat. Mus. natn. hung.*, **58** : 271-279,

Distribution : India : Monghyr (Bihar).

Habitat : Pools ; attached to stones.

Batracobdella lobata (Bhatia)

1984. *Glossiphonia lobata* Bhatia, *Annls Parasit. hum. comp.*, **12** : 121-129. (Type-Localities ; Srinagar, Kashmir ; Type-Deposited : Not known).

1936. *Batracobdella lobata*, Autrum, *Bronns Klassen und Ordnungen des Tierreichs*, Teil 1, Lief 1, 1-95.

Distribution : India : Srinagar (Jammu and Kashmir).

Habitat : Lakes and tanks ; attached to submerged articles.

Batracobdella mahabiri Baugh

1960. *Batracobdella mahabiri* Baugh, *Zool. Anz.*, **165** : 468-477. (Type-Localities : Rewa, Madhya Pradesh ; Type-Deposited : Z. S. I.).

1966. *Batracobdella mahabiri*, Soos, *Annls hist.-nat. Mus. natn. hung.*, **58** : 271-279.

Distribution : India : Rewa (Madhya Pradesh).

Habitat : Tanks and pools ; attached to submerged articles.

Batracobdella reticulata (Kaburaki)

1921. *Glossiphonia reticulata* Kaburaki, *Rec. Indian Mus.*, **22**(5) : 689. (Type-Localities : Jullundhur, Punjab ; Type-Deposited : Z. S. I.).

1927. *Glossiphonia reticulata*, Harding, *Fauna Brit. India*, Hirudinea, 65.

1966. *Batracobdella reticulata*, Autrum, *Bronns Klassen und Ordnungen des Tierreichs*, Teil 1, Lief 1 ; 1-95.

1966. *Batracobdella reticulata*, Soos, *Annls hist.-nat. Mus. natn. hung.*, **58** : 271-279.

Distribution : India : Jullundhar (Punjab) ; Sirmour, Bilaspur, (Himachal Pradesh) ; Satara, Kolhapur (Maharashtra).

Habitat : Tanks, pools and slow moving streams, attached to submerged articles ; parasitic on molluscs.

Genus : **Helobdella** Blanchard, 1896

Helobdella nociva Harding

1924. *Helobdella nociva* Harding, *Ann. Mag. nat. Hist.*, Ser. 9, **14** : 489 (Type-Locality and Type-Deposited : Not known).

1927. *Helobdella nociva* Harding, *Fauna Brit. India*, Hirudinea, 70-72.

1977. *Helobdella nociva* Chandra, *Rec. zool. Surv. India*, **73** (1-4) : 189-195.

Distribution : India : Solan (Himachal Pradesh) ; Calcutta (West-Bengal) ; Puri (Orissa).

Habitat : Tanks and pools ; attached to submerged articles.

Helobdella stagnalis (Linnaeus)

1758. *Hirudo stagnalis* Linnaeus, *Systema Naturae*, 10th ed. (Type-Locality and Type-Deposited : Not known).

1826. *Clepsine bioculata* Moquin-Tondon, *Monographie de la famille des Hirudinees*, 40, Montpellier.

1896. *Helobdella stagnalis*, Blanchard, *Boll. Mus. Zool. Torino*, **11** (263) : 4.

1927. *Helobdella stagnalis*, Harding, *Fauna Brit. India*, Hirudinea, 68-70.

1977. *Helobdella stagnalis*, Chandra, *Rec. zool. Surv. India*, **73** (1-4) : 189-195.

Distribution : India : Srinagar (Jammu and Kashmir) ; Solan, Sirmour (Himachal Pradesh).

Outside India : Canada, U. S. A. and Paraguay.

Habitat : Tanks, ponds, slow moving streams ; attached to submerged articles, parasitic on molluscs, frogs and fishes.

Genus : **Placobdella** Blanchard, 1893

Placobdella ceylanica (Harding)

1909. *Glossiphonia ceylanica* Harding, *Proc. Camb. Phil. Soc.*, **15** : 233 (Type-Locality : Sri Lanka ; Type-Deposited : Not known).

1924. *Placobdella ceylanica*, Moore, *Proc. Acad. nat. Sci. Philad.*, **75** : 343-388.

1927. *Placobdella ceylanica*, Harding, *Fauna Brit. India*, Hirudinea, 73-74.

Distribution : India : Buldana (Madhya Pradesh) ; Chilka Lake (Orissa).

Outside India : Pakistan and Sri Lanka.

Habitat : Lakes and tanks, parasitic on molluscs, frogs and turtles.

Placobdella emydae Harding

1920. *Placobdella emydae* Harding, *Mem. Indian Mus.*, 5 : 510. (Type-Locality and Type-Deposited : Not known).
1927. *Placobdella emydae* Harding, *Fauna Brit. India*, Hirudinea, 74-76.
1977. *Placobdella emydae*, Chandra, *Rec. zool. Surv. India*, 73 (1-4) : 189-195.

Distribution : India : Solan (Himachal Pradesh) ; Chhota Nagpur (Bihar) ; Calcutta, Hooghly (West Bengal) ; Sambalpur, Chilka Lake (Orissa) ; Hoshangabad, Nagpur, Satara (Maharashtra).

Outside India : Burma.

Habitat : Lakes, Tanks, pools ; attached to submerged articles, parasitic on turtles.

Placobdella fulva Harding

1924. *Placobdella fulva* Harding, *Ann. Mag. nat. Hist.*, Ser. 9, 14 : 489 (Type-Locality and Type-Deposited : Not known).
1927. *Placobdella fulva* Harding, *Fauna Brit. India*, Hirudinea, 78.

Distribution : India : Chhota Nagpur, Manbhum (Bihar)

Habitat : Lakes, Tanks, pools ; attached to submerged articles, parasitic on turtles.

Placobdella horai Baugh

1960. *Placobdella horai* Baugh, *Parasitology*, 50 : 287-301. (Type-Locality : Purulia, Bihar ; Type-Deposited ; Z. S. I.)

Distribution : India : Purulia (Bihar).

Habitat : Stream ; attached to dead *Unio* shell.

Placobdella indica Baugh

1960. *Placobdella indica* Baugh, *Zool. Anz.*, 165 : 468-477. (Type-Locality : Sitkundi (Monghyr), Bihar ; Type-Deposited : Z. S. I.).

Distribution : India : Monghyr (Bihar).

Habitat : Pools ; attached to submerged articles.

Placobdella undulata Harding

1924. *Placobdella undulata* Harding, *Ann. Mag. nat. Hist.*, Ser. 9, 14 : 489. (Type-Locality and Type-Deposited : Not known).
1927. *Placobdella undulata* Harding, *Fauna Brit. India*, Hirudinea, 78-81.
1977. *Placobdella undulata*, Chandra, *Rec. zool. Surv. India*, 73 (1-4) : 189-195.

Distribution : India : Jodhpur (Rajasthan) ; Solan (Himachal Pradesh).

Outside India : Sri Lanka.

Habitat : Tanks, pools and lakes, free-living or attached to submerged articles, parasitic on fish.

Genus : **Theromyzon** Philippi, 1867

Theromyzon sexoculata (Moore)

1898. *Protoclepsine sexoculata* Moore, *Proc. U. S. natn. Mus.*, **21** (1160) : 543-568. (Type-Locality : Siberia ; Type-Deposited : Not known).

1902. *Protocleipsis meyeri* Livanow, *Veid. zool. Jahrb.*, **27** : 339-362.

1927. *Theromyzon sexoculata*, Harding, *Fauna Brit. India Hirudinea*, 82-83.

Distribution : India : Loktak Lake (Manipur).

Outside India : Russia, Sweden and France.

Habitat : Lakes and small streams, attacks waterfowls.

Theromyzon mathai Bhatia

1939. *Theromyzon mathai* Bhatia, *Bull. Punj. Univ. Zool.*, **2** : 1-17. (Type-Locality : Srinagar, Kashmir ; Type-Deposited : Not known).

Distribution : India : Srinagar (Jammu and Kashmir).

Habitat : Lakes and tanks ; attached to submerged articles.

Genus : **Hemiclepsis** Vejdovsky, 1883

Hemiclepsis bhatiai Baugh

1960. *Hemiclepsis bhatiai* Baugh, *Parasitology*, **50** : 287-301. (Type-Locality : Kalipahar, Bihar ; Type-Deposited : Z. S. I.).

Distribution : India : Kalipahar (Bihar).

Habitat : Pools ; attached to submerged articles.

Hemiclepsis marginata asiatica Moore

1924. *Hemiclepsis marginata asiatica* Moore, *Proc. Acad. nat. Sci., Philad.* **76** : 343-388. (Type-Locality : Srinagar, Kashmir ; Type-Deposited : Z. S. I.).

1927. *Hemiclepsis marginata asiatica* Harding, *Fauna Brit. India*, *Hirudinea*, 87-88.

1977. *Hemiclepsis marginata asiatica*, Chandra, *Rec. zool. Surv. India*, **73** (1-4) : 189-195.

Distribution : India : Srinagar (Jammu and Kashmir) ; Sirmour (Himachal Pradesh).

Habitat : Slow running streams ; attached to submerged articles.

Hemiclepsis marginata marginata (Müller)

1778. *Hirudo marginata* Müller, *Vermium terrestrium et fluviatilium* 1 Pars 2.4° Havniel et Lipsie, 1773-1774. (Type-Locality and Type-Deposited : Not known).
1887. *Haemocharis marginata* de Fillippi, *Memonia sugli Annelidi della famiglia delle Sanguisughe*, Milano, 26.
1921. *Hemiclepsis marginata marginata*, Kuburaki, *Rec. Indian Mus.*, 22 : 694-695.
1927. *Hemiclepsis marginata marginata*, Harding, *Fauna Brit. India*, Hirudinea, 83-86.
1976. *Hemiclepsis marginata marginata*, Chandra, *Rec. zool. Surv. India*, 69 : 325-328.

Distribution : India : Kumaon (Uttar Pradesh) ; Murshidabad (West Bengal) ; Jodhpur (Rajasthan) ; Igatpur, Satara (Maharashtra) ; Hoshangabad (Madhya Pradesh). Outside India : Europe, Western Asia and Nepal.

Habitat : Lakes, tanks, pools ; free-living or attached to submerged articles, attacks certain molluscs.

Hemiclepsis viridis Chelladurai

1984. *Hemiclepsis viridis* Chelladurai, *Rec. Indian Mus.*, 36 : 345-352. (Type-Localities : Travancore, Kerala : Type-Deposited ; Z. S. I.).

Distribution : India : Travancore (Kerala).

Habitat : Tanks and pools ; attached to submerged articles.

Genus : Paraclepsis Harding, 1924**Paraclepsis praedatrix Harding**

1924. *Paraclepsis praedatrix* Harding, *Ann. Mag. nat. Hist.*, Ser. 9, 14 : 489. (Type-Localities and Type-Deposited : Not known).
1927. *Paraclepsis praedatrix* Harding, *Fauna Brit. India*, Hirudinea, 88-90.
1976. *Paraclepsis praedatrix*, Chandra, *Rec. zool. Surv. India*, 69 : 325-328.

Distribution : India : Sirmour, Solan, Bilaspur (Himachal Pradesh) ; Kalka (Haryana) ; Purulia, Chhota Nagpur (Bihar) ; Mangaldai (Assam) ; Jodhpur, Nagaur, Jaisalmer, Jaipur Bikaner, Sikar (Rajasthan) ; Igatpuri, Kolhapur, Satara (Maharashtra).

Habitat : Lakes, tanks, pools, small streams ; free-living or attached to submerged articles, attacks molluscs amphibians and reptiles.

Paraclepsis vulnifera Harding

1924. *Paraclepsis vulnifera* Harding, *Ann. Mag. nat. Hist.*, Ser. 9, **14** : 489. (Type-
Locality : Tanjore, Tamil Nadu ; Type-Deposited : Not known).
1927. *Paraclepsis praedatrix* Harding, *Fauna Brit. India*, Hirudinea, 91-92.
1976. *Paraclepsis praedatrix*, Chandra, *Rec. zool. Surv. India*, **69** : 325-328.

Distribution : India : Bilaspur (Himachal Pradesh) : Nagaur, Bikaner (Rajasthan) ; Satara (Maharashtra) ; Tanjore (Tamil Nadu).

Habitat : Tanks and pools ; free-living or attached to submerged articles.

Order : ARHYNCHOBDELLAE

Family : ERPOBDELLIDAE

Genus : **Erpobdella** de Blainville, 1818**Erpobdella indicus** Bhatia

1939. *Erpobdella indicus* Bhatia, *Bull. Punj. Univ. zool.*, **2** : 1-17. (Type-Locality :
Srinagar, Kashmir ; Type-Deposited : Not known).

Distribution : India : Srinagar (Jammu & Kashmir).

Habitat : Tanks and pools ; attached to submerged stones.

Erpobdella octoculata (Linnaeus)

1758. *Hirudo octoculata* Linnaeus, *Systema Naturae*, 10th ed. (Type-Locality and
Type-Deposited : Not known).
1894. *Herpobdella atomaria* Blanchard, *Boll. Musei. Zool. Anat. comp. R. Univ. Torino*,
9 (192) : 56.
1910. *Herpobdella atomaria*, Oka, *Annotnes. zool. jap.*, **7** (3) : 117.
1927. *Erpobdella octoculata*, Moore, *Fauna Brit. India*, Hirudinea, 130-135.

Distribution : India : Srinagar (Jammu & Kashmir).

Habitat : Tanks, small streams ; attached to stones.

Genus : **Barbronia** Johansson, 1918**Barbronia weberi** (Blanchard)

1897. *Dina weberi* Blanchard, *Zool. Ergeb. Riese in Neiderlandisch Ost-India*, **4** :
332-355. (Type-Locality : Java ; Type-Deposited : Not known).
1918. *Barbronia rouxi* Johansson, *Sarasin V. Roux, Nova Calendonia, Zoologie*, **2**
(3) : 373-396.

1921. *Herpobdella hexoculata* Kaburaki, *Mem. Indian Mus.*, 5 : 662-675.

1927. *Barbronia weberi*, Moore, *Fauna Brit. India*, Hirudinea, 135-140.

1976. *Barbronia weberi*, Chandra, *Rec. zool. Surv. India*, 69 : 325-328.

Distribution : India : Srinagar (Jammu and Kashmir) ; Sirmour, Solan, Simla, Bilaspur (Himachal Pradesh) ; Hoshangabad (Madhya Pradesh).

Outside India : Pakistan, Nepal, Java and Sumatra.

Habitat : Lakes, Tanks, pools and small streams ; attached to submerged articles.

Genus : **Nematobdella** Kaburaki, 1921

Nematobdella indica Kaburaki

1921. *Nematobdella indica* Kaburaki, *Rec. Indian Mus.*, 18 : 689-719. (Type-Locality : Dharampur, Himachal Pradesh ; Type-Deposited : Z. S. I.).

1927. *Herpodelloidea indica* Moore, *Fauna Brit. India*, Hirudinea, 144-148.

1970. *Nematobdella indica*, Soos, *Opusc. zool., Bpest*, 10 (2) : 313-324.

1976. *Herpodelloidea indica*, Chandra, *Rec. zool. Surv. India*, 69 : 325-328.

Distribution : India : Nagaur, Jodhpur (Rajasthan) ; Bhushampur, Saugor (Madhya Pradesh) ; Satara (Maharashtra) ; Loktak Lake (Manipur).

Habitat : Tanks, pools and lakes ; free-living or attached to submerged articles.

Genus : **Herpodelloidea** Kaburaki, 1921

Herpodelloidea lateroculata Kaburaki

1921. *Herpodelloidea lateroculata* Kaburaki, *Rec. Indian Mus.*, 18 : 689-719. (Type-Locality : Saugor, Madhya Pradesh ; Type-Deposited : Z. S. I.).

1927. *Herpodelloidea lateroculata*, Moore, *Fauna Brit. India*, Hirudinea, 141-143.

1976. *Herpodelloidea lateroculata*, Mahajan & Chandra, *Rec. zool. Surv. India*, 71 : 143-148.

Distribution : India : Jodhpur, Nagaur (Rajasthan) ; Bushampur, Saugor (Madhya Pradesh) ; Satara (Maharashtra) ; Loktak Lake (Manipur).

Habitat : Tanks, pools and lakes ; free-living or attached to submerged articles.

Family : TREMATOBDELLIDAE

Genus : **Foraminobdella** Kaburaki, 1921

Foraminobdella heptamerata Kaburaki

1921. *Foraminobdella heptamerata* Kaburaki ; *Rec. Indian Mus.*, **18** : 689-719. (Type-
Locality : Nedurattan, Tamil Nadu ; Type-Deposited : Z. S. I.).

1927. *Foraminobdella heptamerata*, Moore, *Fauna Brit. India*, Hirudinea, 149-151.

Distribution : India : Nilgiri (Tamil Nadu).

Habitat : Small streams ; amphibious and burrowing in nature.

Family : HIRUDIDAE

Genus : **Myxobdella** Oka, 1917

Myxobdella annandalei Oka

1917. *Myxobdella annandalei* Oka, *Mem. Asiat. Soc. Beng.*, **6** : 159-176. (Type-
Locality : Hong Kong ; Type-Deposited : Z. S. I.).

1927. *Myxobdella annandalei*, Moore, *Fauna Brit. India*, Hirudinea, 161-168.

Distribution : India : Yercaud (Tamil Nadu).

Outside India : Burma and Hong Kong.

Habitat : Small streams ; attached to submerged articles ; attacks
cattles and human beings.

Genus : **Whitmania** Blanchard, 1887

Whitmania laevis (Baird)

1869. *Hirudo laevis* Baird, *Proc. zool. Soc. Lond.*, 310-318. (Type-Localities : Japan ;
Type-Deposited : British Museum).

1884. *Microstoma pigrum* Whitman, *Proc. Am. Acad. Arts Sci.*, **20** : 76-87.

1896. *Whitmania laevis*, Blanchard, *Me'm. Soc. zool. Fr.*, **9** : 316-330.

1927. *Whitmania laevis*, Moore, *Fauna Brit. India*, Hirudinea, 169-175.

Distribution : India : Pagla Nadi (Manipur). Outside India : Burma,
China, Formosa and Japan.

Habitat : Hill streams, ponds and ditches ; attached to submerged
articles.

Genus : **Dinobdella** Moore, 1927**Dinobdella ferox** (Blanchard)

1896. *Whitmania ferox* Blanchard, *Me'm. Soc. zool. Fr.*, 9 : 316-330. (Type-Locality : Not known ; Type-Deposited : British Museum).
1921. *Haemopsis birmanica* Kaburaki, *Rec. Indian Mus.*, 28 : 689-719.
1927. *Dinobdella ferox*, Blanchard, *Fauna Brit. India*, Hirudinea, 175-185.
1977. *Dinobdella ferox*, Chandra. *Rec. zool. Surv. India*, 73 : (1-4) : 189-195.

Distribution : India : Bilaspur (Himachal Pradesh) ; Muktesar, Nainital (Uttar Pradesh) ; Darjeeling (West Bengal) ; Sikkim and Manipur.

Outside India : Sri Lanka and Siam.

Habitat : Ponds, paddy fields ; attacks cattles.

Dinobdella notata Moore

1927. *Dinobdella notata* Moore, *Fauna Brit. India*, Hirudinea, 185-189 (Type-Locality : Palni Hills, Tamil Nadu ; Type-Deposited : Z. S. I.).

Distribution : India : Kodaikanal, Ootacamund (Tamil Nadu).

Habitat : Marshy land : under stones, attacks cattles.

Genus : **Hirudo** Linnaeus, 1758**Hirudo asiatica** Blanchard

1896. *Hirudo asiatica* Blanchard, *Me'm. Soc. zool. Fr.*, 9 : 316-330 (Type-Locality : Afghanistan ; Type-Deposited : British Museum).
1927. *Hirudo asiatica*, Moore, *Fauna Brit. India*, Hirudinea, 190-192.

Distribution : India : Kanpur (Uttar Pradesh).

Outside India : Afghanistan.

Habitat : Tanks and pools ; sometimes as ectoparasites on frogs or free-living.

Hirudo birmanica (Blanchard)

1894. *Haemopsis birmanica* Blanchard, *Annali. Mus. civ. Stor. nat. Giacomo Doria*, 2 (14) : 113-118 (Type-Locality : Karenni Mountains, Burma ; Type-Deposited : Genova Museum).
1924. *Hirudo nipponica fuscolineata* Moore, *Proc. Acad. nat. Sci. Philad.*, 81 : 343-388.
1927. *Hirudo birmanica* Moore, *Fauna Brit. India*, Hirudinea, 192-199.

Distribution : India : Nagaur, Jodhpur (Rajasthan) ; Allahabad, (Uttar Pradesh) ; Sonali, Solmari (Bihar) ; Nilgiri Hills, Kilakaria (Tamil Nadu) ; Satara (Maharashtra) ; West Bengal.

Outside India : Pakistan, Sri Lanka and Burma.

Habitat : Rivers, streams, tanks and ponds ; free-living, attacks humanbeing and cattles.

Haemopsis indicus Bhatia

1939. *Haemopsis indicus* Bhatia, *Bull. Punj. Univ. zool.*, **2** : 1-17. (Type-Locality : Srinagar, Kashmir ; Type-Deposited : Not known).

Distribution : India : Srinagar (Jammu & Kashmir).

Habitat : Lakes and tanks.

Genus : Poecilobdella Blanchard, 1893

Poecilobdella javanica (Wahlberg)

1856. *Sanguisuga javanica* Wahlberg, *Ofversigt Kongl. vet. Akad ; Forth*, 233-234. (Type-Locality : Java ; Type-Deposited : Not known).

1886. *Hirudinaria javanica*, Whitman, *Q. Jl. microsc. Sci.*, **26** : 373-376.

1897. *Limnatis (Poecilobdella) javanica*, Blanchard, *Zool. Ergeb. Reise in Neiderlandisch Ost. Indian*, **4** : 349-351.

1927. *Hirudinaria javanica*, Moore, *Fauna Brit. India*, Hirudinea, 210-218.

1970. *Poecilobdella javanica*, Soos, *Opusc. zool., Bpest*, **10** (2) 313-324.

Distribution : India : West Bengal ; Sikmai Turail (Assam) ; Manipur.

Outside India : Sri Lanka, Burma, Java, Sumatra, Malaysia and Phillippines.

Habitat : Paddy fields, tanks and pools ; attacks cattles and humanbeings, used for medicinal purposes.

Poecilobdella manillensis (Lesson)

1824. *Hirudo manillensis* Lesson, *Revue Zoologique Societe Curierieme*, **8** (Type- Locality : Luzon, Phillippines Islands ; Type-Deposited : Not known).

1861. *Hirudo multistriata* Schmarda, *Neue Turbellarien, Rotatorien und Anneliden*, Leipzig, 2te Halfte, Leeches, 2-7.

1893. *Limnatis (Poecilobdella) granulosa* Blanchard, *Boll. Musei. Zool. Anat. comp. R. Univ. Torino*, **7** (145) : 32.

1924. *Limnatis (Poecilobdella) manillensis*, Moore, *Proc. Acad. nat. Sci. Philad.* **81** : 343-388.

1927. *Hirudinaria manillensis*, Moore, *Fauna Brit. India*, Hirudinea, 218-226.

1970. *Poecilobdella manillensis*, Soos, *Opusc. zool., Bpest*, **10** (2) : 313-324.

Distribution : India : Landaur (Uttar Pradesh) ; Darjeeling, Calcutta (West Bengal) ; Cachar (Assam) ; Karnataka ; Cochin (Kerala).

Outside India : Pakistan, Sri Lanka, Burma, Borneo, Malaysia, Phillippines and China.

Habitat : Paddy fields, tanks and pools, rivers ; attacks cattles and humanbeings, used for medicinal purposes.

Poecilobdella granulosa (Savigny)

1820. *Sanguisuga granulosa* Savigny, *Systeme des Annelides*, Paris. (Type-Locality : Pondicherry ; Type-Deposited : Not known).
1846. *Hirudo granulosa* Moquin-Tandon, *Monographie de la famille des Hirudinees*, 2nd ed., Paris.
1898. *Limnatis (Poecilobdella) granulosa*, Blanchard, *Boll. Musei Zool. Anat. comp. R. Univ. Torino*, 8 : 26.
1921. *Limnatis (Poecilobdella) granulosa*, Kaburaki, *Mem. Indian Mus.*, 5 : 673-675.
1927. *Hirudinaria (Poecilobdella) granulosa*, Moore, *Fauna Brit. India*, Hirudinea, 226-238.
1970. *Poecilobdella granulosa*, Soos, *Opusc. zool., Bpest*, 10 (2) : 313-324.
1977. *Hirudinaria granulosa*, Chandra, *Rec. zool. Surv. India*, 73 (1-4) : 189-195.

Distribution : India : Patiala (Punjab) ; Bilaspur (Himachal Pradesh) ; Kumaon, Mathura, Agra, Bahraich (Uttar Pradesh) ; Ahmedabad (Gujarat) ; Almanabad (Maharashtra) ; Berar (Madhya Pradesh) ; Madras (Tamil Nadu).

Outside India : Sri Lanka, Nepal and Burma.

Habitat : Rivers, marshes, swamps, tanks and pools ; attacks cattles, highest altitudinal record is 3,000 mts.

Poecilobdella viridis Moore

1927. *Hirudinaria (Poecilobdella) viridis* Moore, *Fauna Brit. India*, Hirudinea, 239-243. (Type-Locality : Travancore, Kerala ; Type-Deposited : Z. S. I.).
1966. (1970). *Hirudinaria viridis*, Chandra, *Rec. zool. Surv. India*, 64 (1-4) : 107-110.
1970. *Poecilobdella viridis*, Soos, *Opusc. zool., Bpest*, 10 (2) : 313-324.

Distribution : India : Bilaspur (Himachal Pradesh) ; Varanasi (Uttar Pradesh) ; Etakare (Tamil Nadu) ; Travancore (Kerala).

Habitat : Paddy fields and ponds ; attacks cattles.

Family : HAEMADIPSIDAE

Genus : **Haemadipsa** Tennant, 1859

Haemadipsa zeylanica zeylanica (Moquin-Tandon)

1826. *Sanguisuga zeylanica* Moquin-Tandon, *Monographie de la famille des Hirudinees*, Montpellier. (Type-Locality : Sri Lanka ; Type-Deposited : Not known).
1846. *Hirudo zeylanica* Moquin-Tandon, *Monographe de la famille des Hirudinees* 2nd. ed., Paris.

1866. *Haemadipsa zeylanica*, Whitman, *Q. Jl. microsc. Sci.*, **24** : 317-416.
 1894. *Haemadipsa zeylanica*, Blanchard, *Mus. zool. Anthr. Etch. du Dresden*, No. 4., 5.
 1927. *Haemadipsa zeylanica*, Moore, *Fauna Brit. India*, Hirudinea, 255-264.
 1967. *Haemadipsa zeylanica zeylanica*, Soos, *Acta zool., hung.*, **13** (3-4) : 417-432.
 1977. *Haemadipsa zeylanica*, Chandra, *Rec. zool. Surv. India*, **73** (1-4) : 189-195.

Distribution : India : Sirmour (Himachal Pradesh) ; Ankaling Village (Arunachal Pradesh).

Outside India : Sri Lanka.

Habitat : Deep dampy forests ; upto 3500 mts. height, attacks cattles and humanbeings.

***Haemadipsa zeylanica cochiniensis* Moore**

1927. *Haemadipsa zeylanica cochiniensis* Moore, *Fauna Brit. India*, Hirudinea, 265-266. (Type-Locality : Cochin, Kerala ; Type-Deposited : Z. S. I.).
 1932. *Haemadipsa cochiniensis* Moore, *Rec. Indian Mus.*, **34** (1) : 1-6.
 1967. *Haemadipsa zeylanica cochiniensis*, Soos, *Acta zool., hung.*, **13** (3-4) : 417-432.

Distribution : India : Nilgiri Hills (Tamil Nadu) ; Cochin (Kerala) ; N. Kanara (Maharashtra).

Habitat : Deep dampy forests ; attacks cattles and humanbeings.

***Haemadipsa zeylanica agilis* Moore**

1927. *Haemadipsa zeylanica agilis* Moore, *Fauna Brit. India*, Hirudinea, 266-267. (Type-Locality : Naini Tal, Uttar Pradesh ; Type-Deposited : Z. S. I.).
 1967. *Haemadipsa zeylanica agilis*, Soos, *Acta. zool., hung.*, **13** (3-4) : 417-432.
 1977. *Haemadipsa zeylanica agilis*, Chandra, *Rec. zool. Surv. India*, **73** (1-4) : 189-195.

Distribution : India : Sirmour, Chamba (Himachal Pradesh) ; Naini Tal, Almora, Kumaon, Landour, Muktsar, (Uttar Pradesh) ; Arunachal Pradesh.

Outside India : Nepal.

Habitat : Grassy lands and jungles : attacks cattles and humanbeings.

***Haemadipsa zeylanica montivindicis* Moore**

1927. *Haemadipsa zeylanica montivindicis* Moore, *Fauna Brit. India*, Hirudinea, 267-268. (Type-Locality : Darjeeling, West Bengal ; Type-Deposited : Z. S. I.).
 1966. (1970). *Haemadipsa zeylanica montivindicis*, Chandra, *Rec. zool. Surv. India* **64** (1-4) : 107-110.

Distribution : India : Darjeeling (West Bengal) ; Ghumti (Assam) ; Kalimpong (Sikkim) ; Arunachal Pradesh.

Habitat : Damp ravines and drippy forests ; upto 3000 mts. height, attacks cattles and human beings.

Haemadipsa montana Moore

1927. *Haemadipsa montana* Moore, *Fauna Brit. India*, Hirudinea, 269-276. (Type-
Locality : Palni Hills, Tamil Nadu ; Type-Deposited : Z. S. I.).
1966. (1970) *Haemadipsa montana*, Chandra, *Rec. zool. Surv. India*, 64 (1-4) :
107-110.

Distribution : India : Darjeeling (West Bengal) ; Makaibari, Aplane, Gey, Gangtok (Sikkim) ; Moshing, Chug, Shergaon (Arunachal Pradesh) ; Palni Hills (Tamil Nadu).

Habitat : Deep dampy forests ; upto 3000 mts. height, attacks cattles and humanbeings.

Haemadipsa sylvestris Blanchard

1894. *Haemadipsa sylvestris* Blanchard, *Annali Mus. civ. Stor. nat.* Giacomo Doria, 2 (14) : 113-118 (Type-Localitiy : Carin, Burma ; Type-Deposited : Not known).
1927. *Haemadipsa sylvestris*, Moore, *Fauna Brit. India*, Hirudinea, 276-284.
1966. (1970) *Haemadipsa sylvestris*, Chandra, *Rec. zool. Surv. India*, 64 (1-4) :
107-110.

Distribution : India : Naini Tal, Bahraich (Uttar Pradesh) ; Darjeeling, Calcutta (West Bengal) ; Amatula, Padamchen (Sikkim) ; Shillong, Cachar, Cherrapungi (Assam) ; Jhumla, Moshing, Donkochu, Shergaon, Sangloo, Domkho (Arunachal Pradesh).

Outside India : Burma, Java and Sumatra.

Habitat : Swamps and dampy places ; upto 1500 mts. height ; attacks cattles and human beings.

Haemadipsa ornata Moore

1927. *Haemadipsa ornata* Moore, *Fauna Brit. India*, Hirudinea, 284-289. (Type-
Locality : Darjeeling, West Bengal ; Type-Deposited ; Z. S. I.).

Distribution : India : Darjeeling (West Bengal) ; Kamrup (Assam).

Habitat : Drippy forests ; upto 1000 mts. height ; attacks cattle and human beings.

Haemadipsa dussumieri Blanchard

1917. *Haemadipsa dussumieri* Blanchard, *Bull. Soc. Path. exot.* 10 : 640-675 (Type-
Locality : South India ; Type-Deposited : Paris Museum).
1927. *Haemadipsa dussumieri*, Moore, *Fauna Brit. India*, Hirudinea, 289-290.

Distribution : South India.

SUMMARY

The Present paper deals with 52 species and 8 subspecies of leeches belonging to 25 genera and 5 families so far known from India within the present geographical limits. The Type-Locality and Type-Depository and their distribution outside India has also been mentioned under each species.

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