

## A CHECK-LIST OF LEECHES OF HIMACHAL PRADESH, INDIA.

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### INTRODUCTION

Harding and Moore (1927) recorded five species from Himachal Pradesh in the Fauna of British India (Hirudinea). Chandra (in press) recently recorded another five species from the area. The present check list is a result of author's extensive surveys and studies of the leech fauna from different parts of Himachal Pradesh. The check list now includes sixteen species, of which six are recorded for the first time from the area. A key to the species of leeches known from Himachal Pradesh to-date is provided. Data regarding type locality and type-depository have been given for each species wherever possible.

### *Key to the species*

- |   |     |                                       |
|---|-----|---------------------------------------|
| 1. Jawless, protrusible proboscis present                       | ... | 2                                     |
| Jawed protrosible proboscis absent                              | ... | 10                                    |
| 2. Eyes one pair  | ... | 3                                     |
| Eyes more than one pair   | ... | 6                                     |
| 3. Mouth opening subterminal                                    | ... | 4                                     |
| Mouth opening within anterior sucker                            | ... | 5                                     |
| 4. Head region somewhat dialated; eyes in annulus               | ... | * <i>Placobdella emydae</i>           |
| Head dialated and distinct from body,<br>eyes in annulus 4 ...  | ... | * <i>Placobdella undulata</i>         |
| 5. Dorsal scute present ...                                     | ... | <i>Helobdella stagnalis</i>           |
| Dorsal scute absent ...   | ... | * <i>Helobdella nociva</i>            |
| 6. Eyes two pairs   | ... | 7                                     |
| Eyes three pairs  | ... | 8                                     |
| 7. Head somewhat dialated;<br>Eyes in annuli 4 and 5            | ..  | <i>Batracobdella reticulata</i>       |
| Head dialated and distinct from<br>body; Eyes in annuli 3 and 4 | ... | <i>Hemiclepsis marginata asiatica</i> |

8. Mouth opening within anterior sucker . *Glossiphonia weberi*  
Mouth opening subterminal .. 9
9. Head region distinct from the body ... *Paraclepsis praedatrix*  
Head region continuous with the body *Paraclepsis vulnifera*
10. Eyes forming a regular arch ... 11  
Eyes never forming a regular arch .. 15
11. Third and fourth pair of eyes separated by an annulus . 12  
Third and Fourth pair of eyes usually on contiguous annuli 14
12. Teeth absent or vestigial; vaginal stalk present \* *Dinobdella ferox*  
Teeth well developed; vaginal stalk absent 13
13. Dorsum brown; venter rarely green ... *Hirudinaria granulosa*  
Colour bright green .. \* *Hirudinaria viridis*
14. Colour mottled with a dorso-median dark sripe .. \* *Haemadipsa zeylanica*  
Colour dark blotched pattern without a dorso-median line ... \* *Haemadipsa zeylanica agilis*
15. Eyes three pairs; postcephalic accessory eyes absent *Barbronia weberi*  
Eyes one pair; 5 pairs of postcephalic accessory eyes present *Herpobdelloidea indica*

\* New records from the area based on the collection present in the High Altitude Zoology Field Station, Z. S. I. Solan

#### CHECK LIST

Phylum ANNELIDA  
Class HIRUDINEA  
Order RHYNCHOBDELLAE  
Family GLOSSIPHONIDAE  
Genus *Batracobdella* Viguiet, 1879.

#### 1. *Batracobdella reticulata* (Kaburaki)

1921. *Glossiphonia reticulata* Kaburaki, *Rec. Indian Mus.*, 22: 689-719 (Type-locality: Jullundhur, Type-deposited: Z. S. I.).
1936. *Batracobdella reticulata*, Autrum, *Bronn's Kl. Ordn. Tierreichs*, Teil, 1 Lief. 1:1-95. (Revision).
1976. *Batracobdella reticulata*, Chandra, *Rec. zool. Surv. India.*, 69 ; 255-259

*Distribution.*— Sirmour, Bilaspur (H.P.). Elsewhere—India : Punjab, Maharashtra.

Genus **Glossiphonia** Johnson, 18162. **Glossiphonia weberi** Blanchard

1897. *Glossiphonia weberi* Blanchard, *Zool. Ergebn einer Reise*, Maxweber, IV:332 (Type-locality : Sumatra, Type-deposited: not Known ).
1927. *Glossiphonia weberi*, Harding, *Fauna Brit. India*, Hirudinea, 62-65. Distribution).
1976. *Glossiphonia weberi*, Chandra, *Rec. zool. Surv. India*. 69 : 255-259

*Distribution.*— Solan, Bilaspur, Sirmour (H. P. ). *Elsewhere*—India: Widely distributed. Burma, Indonesia, Uganda and Pakistan.

Genus **Helobdella** Blanchard, 18963. **Helobdella nociva** Harding

1924. *Helobdella nociva* Harding, *Ann. Mag. nat. Hist.* Ser. 9, XIV : 489. (Type-locality and type deposited : not known).
1927. *Helobdella nociva* Harding, *Fauna Brit. India*, Hirudinea, 70-72. (Distribution).

*Distribution.*— Solan ( H. P. ). *Elsewhere* — India : Orissa, West Bengal.

4. **Helobdella stagnalis** (Linnaeus)

1758. *Hirudo stagnalis* Linnaeus, *Systema Naturae*, 10th, ed, (Type-locality and type-deposited: not known).
1927. *Helobdella stagnalis*, Harding, *Fauna Brit. India*, Hirudinea, 68-70 (Distribution).
1976. *Helobdella stagnalis*, Chandra, *Rec. zool. Surv. India*. 69 : 255-259.

*Distribution.*— Sirmour, Solan, (H. P. ). *Elsewhere* India: Jammu and Kashmir. Canada, U. S. A., Europe, W. Asia and South America.

Genus **Hemiclepsis** Vejdovsky, 18825. **Hemiclepsis marginata asiatica** Moore

1924. *Hemiclepsis marginata asiatica* Moore, *Proc. Acad. nat. Sci., Philad.*, LXXVI : 343-388. (Type-locality: Kashmir, type-deposited : Z. S. I. ).
1927. *Hemiclepsis marginata asiatica*, Harding, *Fauna Brit. India*, Hirudinea, 87-88. (Distribution).
1976. *Hemiclepsis marginata asiatica*, Chandra, *Rec. zool. Surv. India*. 69 : 255-259

*Distribution.*— Sirmour, (H. P. ). *Elsewhere*—India: Jammu and Kashmir. Canada, U. S. A., Paraguay, Andes, Western Asia.

Genus *Paraclepsis* Harding, 19246. *Paraclepsis praedatrix* Harding

1924. *Paraclepsis praedatrix* Harding, *Ann. Mag. nat. Hist.*, Ser. 9, XIV: 489. (Type-locality and type-deposited: not known).
1927. *Paraclepsis praedatrix* Harding, *Fauna Brit. India*. Hirudinea, 88-90. (Distribution).
1976. *Paraclepsis praedatrix*, Chandra, *Rec. zool. Surv. India*. 69 : 255-259.

*Distribution*:— Solan, Bilaspur, Sirmour (H. P.). *Elsewhere*—India: West Bengal, Assam, Maharashtra and Rajasthan.

7. *Paraclepsis vulnifera* Harding

1924. *Paraclepsis vulnifera*, Harding, *Ann. Mag. nat. Hist.*, Ser. 9, XIV : 489. (Type-locality: Tanjore, Tamilnadu, type deposited : not known).
1927. *Paraclepsis vulnifera* Harding, *Fauna Brit. India*, Hirudinea, 91. (Distribution).
1976. *Paraclepsis vulnifera*, Chandra, *Rec. zool. Surv. India*. 69 : 255-259

*Distribution*.—Bilaspur, (H.P.). *Elsewhere*—Tamilnadu, Maharashtra and Rajasthan.

Genus *Placobdella* Blanchard, 18938. *Placobdella emydae* Harding

1920. *Placobdella emydae* Harding, *Mem. Indian Mus.*, V (7): 510. (Type-locality: Gatiagurh, W. Bengal, type-deposited: Z. S. I.).
1927. *Placobdella emydae* Harding, *Fauna Brit. India*. Hirudinea, 74-76. (Distribution).

*Distribution*.— Solan (H. P.). *Elsewhere*—India: W. Bengal, Orissa, Madhya Pradesh and Maharashtra. Burma.

9. *Placobdella undulata* Harding

1924. *Placobdella undulata* Harding, *Ann. Mag. nat. Hist.* Ser. 9, XIV : 489. (Type-locality and type-deposited : not known.)
1927. *Placobdella undulata* Harding, *Fauna Brit. India*, Hirudinea, 78-81. (Distribution).

*Distribution*.— Solan (H. P.) *Elsewhere*—India: Rajasthan; Ceylon.

Order ARHYNCHODELLAE

Family ERPOBDELLIDAE

Genus *Barbronia* Johanson, 1918.

10. *Barbronia weberi* (Blanchard)

1897. *Dina weberi* Blanchard, *Zool. Ergebn. Oiner. Reise Maxweber*, VI : 332-355. (Type-locality: Jawa, type-deposited in Z. S. I.).

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

1976. *Barbronia weberi*, Chandra, *Rec. zool. Surv. India*. 69 : 255-259.

*Distribution*.— Sirmour, Solan, Bilaspur, Simla (H. P.). *Elsewhere* India: Kashmir, Uttar Pradesh, Madhya Pradesh and Rajasthan. Nepal, Indonesia, Philippines and Borneo.

### Genus *Herpobdelloidea* Kaburaki

#### 11. *Herpobdelloidea indica* (Kaburaki)

1921. *Nematobdella indica* Kaburaki, *Rec. Indian Mus.*, XVIII : 689—789. (Type-locality: Dharampur, (H. P.). Type-deposited: Z. S. I.).

1927. *Herpobdelloidea indica*, Moore, *Fauna Brit. India*. Hirudinea, 144-148. (Distribution).

1976. *Herpobdelloidea indica*, Chandra, *Rec. zool. Surv. India*, 69 : 255-259

*Distribution*.— Bilaspur, Simla, Sirmour and Solan, Chamba and Kangra (H. P.). *Elsewhere*—India: Haryana, Madhya Pradesh and Maharashtra

Family HIRUDIDAE

Genus *Dinobdella* Blanchard

#### 12. *Dinobdella ferox* (Blanchard)

1896. *Whitmania ferox* Blanchard, *Mem. Soc. Zool. France*, IX: 316-330. (Type-locality: not known, Type-deposited: British Museum).

1927. *Dinobdella ferox*. Moore, *Fauna Brit. India*. Hirudinea. 175-185. (Revision).

*Distribution*.— Bilaspur (H. P.). *Elsewhere*—India : Assam, W. Bengal, Manipur and Uttar Pradesh. Malaysia and Pakistan.

Genus *Hirudinaria* Whitman

#### 13. *Hirudinaria granulosa* (Savigny)

1820. *Sanguisuga granulosa* Savigny, *Systeme des Annelides*, Paris (1822). (Type-locality: Pondichery, Type-deposited: Z. S. I.).

1927. *Hirudinaria granulosa*, Moore, *Fauna Brit. India*, Hirudinera, 226-238. (Ecology).

1976. *Hirudinaria granulosa*, Chandra, *Rec. zool. Surv. India* 69 : 255-259

*Distribution*.— Bilaspur, Kangra and Solan (H. P.). *Elsewhere*, —India : widely distributed. Burma, Sri Lanka, Nepal.

#### 14. *Hirudinaria viridis* Moore

1927. *Hirudinaria viridis* Moore, *Fauna Brit. India*, Hirudinea 239-243. (Type-locality: Shasthancottah, Kerala, Type-deposited: Z. S. I.)

*Distribution.*—Bilaspur (H.P.) *Elsewhere*—India : Kerala, Tamilnadu, Uttar Pradesh.

Family HAEMADIPSIDAE

Genus Haemadipsa Tennent, 1859

15. *Haemadipsa zeylanica* (Moquin-Tandon)

1826. *Sanquisuga zeylanica* Moquin—Tandon,—*Monographie de la famille des Hirudinees*, Montpellier. (Type-locality: Sir Lanka, Type-deposited: not known).

1927. *Haemadipsa zeylanica*, Moore, *Fauna Brit. India*, Hirudinea, 255-264. (Distribution).

1967. *Haemadipsa zeylanica*, Chandra, *Rec. zool. Surv. India*, 69 : 255-259

*Distribution.*—Sirmour (H. P.). *Elsewhere*—India : Nagaland. Throughout South East Asia upto Japan.

16. *Haemadipsa zeylanica agilis* Moore

1927. *Haemadipsa zeylanica agilis* Moore, *Fauna Brit. India*, Hirudinea, 266-267. (Type-locality: Nainital, Type-deposited: Z. S. I.).

*Distribution.*—Sirmour, Chamba (H. P.). *Elsewhere*—India : W.Bengal, Nagaland and Uttar Pradesh.

ACKNOWLEDGEMENT

The author is highly grateful to Dr. S. Khera, Joint Director-in-Charge, and Dr. Raj Tilak, Superintending Zoologist, for providing the facilities and valuable suggestions during the course of preparation of this paper.

ABBREVIATIONS USED

H. P. — Himachal Pradesh.

Z. S. I. — Zoological Survey of India.

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