

CHECKLIST OF THE HIRUDINEA (LEECHES) OF INDIA

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INTRODUCTION

Although the work of W. A. Harding and J. P. Moore (1927) continues to be the last authoritative word on the Hirudinea in the Fauna of British India series, this fauna has seen a dramatic increase in the number of species in West Bengal and also in India—a result of new species descriptions, revision of several groups, and raising of a number of species.

Preparation work on a checklist of the Hirudinea of India (also the common technical (name of the leeches) shows 62 species in India (25 in West Bengal) which is significantly different from the information generally available. It was this thought that a simple informing working checklist would aid workers on Hirudinea as well as those who require this information for biodiversity assessments.

This work differs from an earlier (Chandra, 1991) in containing names of two new sp., only found within Indian limits. It also incorporates new name changes, includes all new species described and attempts at standardization of the English several common names of all Indian leeches. Seven new records of Leeches in West Bengal, as well as omissions, have been corrected.

As of the cut off date (June, 1991) the total number of Hirudinean species known from the territory of India was 60, which includes 34 species endemic to the Indian region would increase substantially.

KEY WORDS : Hirudinea, Checklist, English common names, Biodiversity, India.

PISCICOLIDAE

1. *Branchellion plicobranchus* Sanjeeva Raj. 1954 Branchiaeal leeches. (Endemic in India)
2. *Ozobranchus branchiatus* (Baird, 1869) : Chelonial leeches.
3. *Ozobranchus margoii* (Apáthy, 1890) : Pseudobranchelion Leeches.
4. *Ozobranchus polybranchus* Sanjeeva Raj, 1951 : Porto Noval leeches. (Endemic in India)
5. *Ozobranchus shipleyi* Harding, 1909 : Sri Lankan turtle leeches.

6. *Piscicola caeca* Kaburaki, 1921 : Eye less leeches. (Endemic in India)
7. *Piscicola olivacea* Harding, 1920 : Blind Shark leeches.
8. *Pontobdellina macrothela* (Schmarda, 1861) : Jamaican leeches.
9. *Pterobdella amara* Kaburaki, 1921 : Fin bearing leeches. (Endemic in India).
10. *Zeylanicobdella arugamensis* De Silva, 1963 : Arugam kalapu leeches or Cylindrical leeches.

GLOSSIPHONIDAE

11. *Batracobdella hardingi* Baugh, 1960 : Coalesed eyed leech. (Endemic in India)
12. *Batracobdella lobata* (Bhatia, 1934) : Leech of Srinagar or Flower vase leech. (Endemic in India)
13. *Batracobdella mahabiri* Baugh, 1960 : Rewal dragger. (Endemic in India)
14. *Batracobdella reticulata* (Kaburaki) 1921 : Anodontal leech. (Endemic in India)
15. *Glossiphonia annandalei* Oka 1921 : Lanceolate leech or Indo-Burman leech.
16. *Glossiphonia complanata complanata* (Linnaeus) 1758 : Ovate elliptical leech.
17. *Glossiphonia cruciata* Bhatia 1930 : Elliptic-claviform leech. (Endemic in India)
18. *Glossiphonia heteroclitia* (Linnaeus) 1761 : Ovate acuminate leech.
19. *Glossiphonia weberi weberi* Blanchard, 1897 : Bitten rice or Sumatran leech.
(Sumatra, India, Pakistan, Burma, Nepal)
20. *Helobdella nociva* Harding, 1924 : Claviform leeches. (Endemic in India)
21. *Helobdella stagnalis* (Linnaeus), 1758 : Gastropodan leech.
22. *Hemiclepsis bhatiae* Baugh, 1960 : Monghyr leech. (Endemic in India)
23. *Hemiclepsis marginata asiatica* Moore, 1927 : Importioned eyed leech.
(Endemic in India)
24. *Hemiclepsis marginata marginata* Muller, 1774 : Pigmented leech.
25. *Hemiclepsis viridis* Chelladurai, 1934 : Ovate lanceolate leech. (Endemic in India)
26. *Paraclepsis praedatrix* Harding, 1924 : Head constriction bearing leech.
(Endemic in India)
27. *Paraclepsis vulnifera* Harding, 1924 : Tanjorean (Tamilnadu) leech. (Endemic in India)
28. *Paraclepsis viridis* (sp.) Mandal, 2002 : Jewel leech of Botanical Garden.
29. *Placobdella ceylanica* (Harding, 1909) : Srilankan type leech of Placobdella genus
(Pakistan, Srilanka & India)
30. *Placobdella chandrakantai* (sp) Mandal, 2002 : Green queen of South 24 Parganas.
(Endemic in India)

31. *Placobdella emydae* Harding, 1920 : Indo Burman leech.
32. *Placobdella fulva* Harding, 1924 : Leech of undilated head region. (Endemic in India)
33. *Plaeobdella horai* Baugh, 1960 : Purulian type leech. (Endemic in India)
34. *Placobdella indica* Baugh, 1960 : Elliptic lanceolate leech. (Endemic in India)
35. *Placobdella undulata* Harding, 1924 : Leech of undulated head.
(India and Srilanka)
36. *Theromyzon mathati* Bhatia, 1939 : Heart leech or Leech of eight eyes. (Endemic in India)
37. *Theromyzon sexoculata* (Moore, 1898) : Enemy leech of water fowls.

ERPOBDELLIDAE

38. *Barbronia weberi* (Blanchard, 1897) : Type leech of Java.
39. *Erpobdella octoculata* (Linnaeus, 1758) : Brown chilli.
40. *Foraminobdella heptamerata* Kaburaki, 1921 : Wrinkled guest leech of amphibia.
(Endemic in India)
41. *Herpobdelloidea lateroculata* Kaburaki, 1921 : Worm leech of Saugor, Madhya Pradesh.
(Endemic in India)
42. *Nematobdella indica* Kaburaki, 1921 : Worm leech of Dharmapura, Himachal Pradesh.
(Endemic in India)

HIRUDIDAE

43. *Dinobdella ferox* (Blanchard, 1896) : Parasitic leech of wild domestic animals.
(India, Srilanka And Siam)
44. *Dinobdella notata* Moore, 1927 : Freeliving and also parasitic leech of amphibians.
(Endemic in India)
45. *Haemopis indicus* Bhatia, 1940 : Burrowing and amphibious leech. (Endemic in India)
46. *Hirudo asiatica* Blanchard, 1896 : Frog parasitic leech.
(Afghanistan and India)
47. *Hirudo birmanica* (Blanchard, 1894) : Type leech of Burma.
(Burma, India, Pakistan and Srilanka).
48. *Myxobdella annandalei* Oka, 1917 : Less teeth containing type leech of Hong Kong or
Tools of Palaeolithic age. (Endemic in India)
49. *Poecilobdella granulosa* (Savigny, 1820) : Medicinal leech of India.
(India, Srilanka, Nepal and Burma).
50. *Poecilobdella javanica* (Wahiberg, 1856) : Medicinal leech of Java (Round mouth).

51. *Poecilobdella manillensis* (Lesson, 1842) : Medicinal leech of Philippines or Common medicinal paddy field leech.
52. *Poecilobdella viridis* Moore, 1927 : Medicinal type leech of Kerala. (Endemic in India)
53. *Whitmania laevis* (Baird, 1869) : Sluggish and leafy Type leech of Japan.
(Manipur, Burma, China, Formosa and Japan).

HAEMADIPSIDAE

54. *Haemadipsa dussumieri* Blanchard, 1917 : South Indian Type leech. (Endemic in India).
55. *Haemadipsa Montana* Moore, 1927 : Chain striped leech.
56. *Haemadipsa moorei* Sanjeva Raj and Glandstone, 1981 : Painful biting leeches.
(Endemic in India).
57. *Haemadipsa ornata* Moore, 1927 : Cream coloured leeches. (Endemic in India).
58. *Haemadipsa sylvestris* Blanchard, 1894 : Largest and robust land leeches of India.
(India, Burma, Java and Sumatra).
59. *Haemadipsa zeylanicaagilis* Moore, 1927 : Common land leeches of Western Himalayas.
(Endemic in India).
60. *Haemadipsa zeylanica cochiniana* Moore : type leech of Cochin. (Endemic in India).
61. *Haemadipsa zeylanica montivindicis* Moore, 1927 : Type leech of Darjeeling.
(Endemic in India).
62. *Haemadipsa zeylanica zeylanica* (Moquin-Tandon) : Srilankan Haemadipsidae.
(India and Srilanka).

SUMMARY

An updated checklist of Leeches (Sp. & Subsp.) recorded from the Republic of India is presented along with their authorities (and a suggested common name). The list is significantly larger than those being currently used for biodiversity estimates of this fauna containing 62 species of which 34 are endemic in India.

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REFERENCES

- Baugh, S. C. 1960b. Studies on Indian Rhynchobdellid leeches, 11. *Zool. Anz.* **165** : 468-477.
- Baugh, S. C. 1960a. Studies on Indian Rhynchobdellid Leeches. 1. *Parasitology*, **50** : 287-301.
- Bhatia, M. L. 1930. Sur une nouvelle, Hirudinee Rhynchobdelle, *Glossiphonia cruciata* n. sp., sprovenant du vivier a truites d, Achha Bal, Kashmir, *Ann. Parasit. Paris*, **8** : 334-347.
- Blanchard, R. 1893. Courtes notices sur les Hirudinees. X. Hirudinees de l' Europe Boreale. *Bull. Soc. zool. France*, **18** : 93.
- Chandra, M. 1970. Notes on a small collection of leeches. *Rec. zool. Surv. India*. **64**(1-4) : 109.
- Chandra, M. 1983. A check-list of leeches of India. *Rec. zool. Surv. India*. **80**(3&4) : 265-290.
- Chandra, M. 1991. Leeches of India : 51-55.
- Ghosh, G. C. 1998. State Fauna Series, 3, Part **10** : 227-249.
- Ghosh, G. C. and Mandal C. K. 1999. State Fauna Series, 3, Fauna of Andhra Pradesh (in press).
- Harding, W. A. 1920. Fauna of the Chilka Lake : Hirudinea. *Mem. Indian Mus.*, **5**(7) : 510.
- Harding, W. A. and Moore, J. P. 1927. Fauna British India including Ceylon and Burma : Hirudinea, I-XXXVI 11 & 1-302 (Tailor & Francis, London).
- Harding, W. A. 1924. Description of some New Leeches from India, Burma and Ceylon. *Ann. Mag. nat. Hist.*, (9)**14** : 489.
- Johnson, J. R. 1860. Treatise on the Medicinal Leech. 8. London.
- Kaburaki, T. 1921. Notes on some Leeches in the Indian Museum. *Rec. Indian Mus.*, **18** : 689-719.
- Linnaeus, C. 1758. *Systema naturae*, Lipsiae, ed. X., pp. 648-651.
- Mahajan, K. K. and Chandra, M. 1976. Report on a collection of Leeches from Rajasthan, India. *Rec. zool. Surv. India*, **71** : 104-147.
- Mandal, C. K. 1996. On the occurrence of the two Leeches; *Hemiclepsis marginata asiatica* and *Placobdella filiva* in West Bengal, *Sci. & Cult.*, **62**(5-6).
- Mandal, C. K. 2000. On the occurrence and breeding season of the leech *Placobdella emydae* in West Bengal. *Sci. & Cult.*, **66**(7-8) : 267-268.
- Mandal, C. K. 2002. On the occurrence of Leech *Barbronia weberi* in West Bengal. *Sci. & Cult.* (in press).
- Mandal, C. K. 2002. On the occurrence of Leech *Glossiphonia annandalei* in West Bengal and Andhra Pradesh. *Sci. & Cult.* (in press).
- Mandal, C. K. 2002. State Fauna Series, 3 : Fauna of Andhra Pradesh, Leech Fauna, (in press).
- Moore, J. P. 1924. Notes on some Asiatic Leeches ... principally from China, Kashmir and British India. *Proc. Acad. nat. Sci., Philadelphia*, **76** : 343-388.

- Raut, S. K. and Nandi N. C. 1980. Observations on the predatory behaviour of a fresh-water leech *Glossiphonia weberi* (Blanchard) (Annelida : Glossiphonidae). *Bull. zool. Surv. India*, **2** : 223-224.
- Soos, A. 1965. Identification Key to the Leech (Hirudinoidea) Genera of the World, with a Catalogue of the Species. III-IV, *Acta. zool. Hung.*, **11**(3-4) : 415-464.
- Soos, A. 1969b. Identification Key to the Leech (Hirudinoidea) Genera of the World with a Catalogue of the Species. VI. *Acta. Zool. Hung.*, **15**(3-4) : 397-454.
- Soota, T. D. and Ghosh, G. C. 1977. On some Indian Leeches. *Newsl. zool. Surv. India*, **3**(6) : 359-360.
- Tenrlent, J. E. 1859. Leeches ... in Ceylon. An account of the Island. London. I : 500.
- Whitman, C. O. 1886. The Leeches of Japan. *Quart. Journ. Microsc. Sci.*, **26** : 317-416.