

REPORT ON A COLLECTION OF LEECHES
FROM RAJASTHAN INDIA

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INTRODUCTION

The material dealt with in this paper was collected from various localities in Rajasthan by the different tour parties of Zoological Survey of India, during 1944-1964. The specimens were mostly from the bottom of seasonal tanks and pools, from the surface of stones, leaves and other submerged articles of wood etc.

Altogether ten species i.e. (i) *Glossiphonia heteroclita* (Linn.), (ii) *Glossiphonia weberi* Blanchard, (iii) *Glossiphonia annandalei* Oka, (iv) *Placobdella undulata* Harding, (v) *Hemiclepsis marginata marginata* (Müller), (vi) *Paraclepsis praedatrix* Harding, (vii) *Paraclepsis vulnifera* Harding, (viii) *Herpobdelloidea indica* (Kaburaki), (ix) *Herpobdelloidea lateroculata* Kaburaki, (x) *Hirudo birmanica* (Blanchard) are recorded in this report. Out of these the one at Sl. No. iv is being the first record from India. The others are first records from Rajasthan.

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SYSTEMATIC ACCOUNT

Class HIRUDINEA
Order ARHYNCHOBDELLAE
Family GLOSSIPHONIDAE
Genus **Glossiphonia** Johnson

1. ***Glossiphonia heteroclita*** (Linn.); 1761

1761. *Hirudo heteroclita* Linnaeus, *Fauna Suecia*, 2nd Ed. No. 2085.

1894. *Glossiphonia heteroclita* Blanchard, *Bull. Mus. Zool.*, Torino, ix, No. 192, p. 26.

1927. *Glossiphonia heteroclita* Harding, *Fauna of British India*, Hirudinea, pp. 60-62.

Material.—(i) 1 ex., Tank at Rol Qazian, Nagaur, 4.ix.1960. (ii) 2 exs., Tank at Didia, Nagaur, 4.ix.1960. (iii) 9 exs., Singar, Nagaur, 2.ix.1960. All coll. *B. Biswas*.

Distribution.—Rajasthan as above (first record). Elsewhere : India—Maharashtra.

2. *Glossiphonia weberi* Blanchard, 1897

1897. *Glossiphonia weberi* Blanchard, *Zool. Ergeb. einer Reise*, Max weber, Bd. iv, p. 332, fig. 1.

1956. *G. weberi*: Soota, *Rec. Indian Mus.*, 54 (1 & 2), p. 2 (1959).

Material.—(i) 15 exs., Khatu Nullah, Phalodi, Jodhpur, 14.xii.57. Coll. *K. K. Tiwari* and *S. Biswas*. (ii) 5 exs., Agolai, Jodhpur, 23.ii.1962. (iii) 9 exs., Agolai, Jodhpur, 28.ii.1962. (iv) 6 exs., Pratap Sagar, Jodhpur, 26.ii.1962. (v) 2 exs., Pratap Sagar, Jodhpur, 26.ii.1962. All coll. *K. K. Mahajan*. (vi) 2 exs., Harsolar Village, Bikaner, 17.xii.1963. (vii) 15 exs., Mithari Nadi, Jodhpur, 30.xi.1963. (viii) 4 exs., Lambia Talab, Jodhpur, 2.xii.1963. All Coll. *K. N. Nair* and *R. N. Mukherjee*.

Distribution.—Rajasthan as above (first record). Elsewhere : India—widely distributed.

3. *Glossiphonia annandalei* Oka, 1922

1922. *Glossiphonia annandalei* Oka, *Rec. Indian Mus.* 24 (4), p. 521.

1927. *Glossiphonia annandalei*: Harding, *Fauna of British India*, Hirudinea, pp. 65-68.

Material.—(i) 3 exs., Gulab Sagar, Jaisalmer, 26.xii.1957. (ii) 2 exs., Salamsar, Pokran, Jaisalmer, 23.xii.1957 All Coll. *K. K. Tiwari* and *S. Biswas*.

Distribution.—Rajasthan and above (first record), Elsewhere : India—Orissa, Maharashtra.

Genus *Placobdella* Blanchard

4. *Placobdella undulata* Harding, 1924.

1924. *Placobdella undulata* Harding, *Ann. Mag. Nat. Hist.*, Ser. 9, xiv ; p. 489.

1927. *Placobdella undulata*: Harding, *Fauna of British India*, Hirudinea, pp. 78-81.

Material.—(i) 3 exs., Takat Sagar, Jodhpur, 22.vi.1962. (ii) 1 ex., Pratap Sagar, Jodhpur, 26.vi.1962. All Coll. K. K. Mahajan.

Distribution.—Rajasthan, as above (first record) Recorded for the first time from India. Elsewhere : Ceylon.

Genus *Hemiclepsis* Vejdovsky

5. *Hemiclepsis marginata marginata* (Müller), 1774

1774. *Hirudo marginata* Müller, *Vermium terrestrium fluviatilium*, 1, part 2.40. Havniae et Lipsiae.

1921. *Hemiclepsis marginatas*: Kaburaki *Rec. India Mus.*, 22 (5), p. 689.

1956. *Hemiclepsis marginata marginata* Soota, *Rec. Indian Mus.*, 54 (1 & 2), p. 2 (1959).

Material.—(i) 3 exs., Takat Sagar, Jodhpur, 22.vii.1962. (ii) 2 exs., Pratap Sagar, (Kailana Tank), Jodhpur, 26.xi.1962. (iii) 4 exs., Takat Sagar, Jodhpur, 22.xi.1962. All Coll. K. K. Mahajan.

Distribution.—Rajasthan, as above (first record). Elsewhere : India—Western Himalayas, Orissa, Bengal and Maharashtra.

Genus *Paraclepsis* Harding

6. *Paraclepsis praedatrix* Harding, 1924

1924. *Paraclepsis praedatrix* Harding, *Ann. Mag. Nat. Hist.*, Ser. 9, xiv, p. 489, pls. ix-xv.

1927. *Paraclepsis praedatrix*: Harding, *Fauna of British India*, Hirudinea, pp. 88-90.

Material.—(i) 2 exs., Rashidpura, Sikar, 11.xi.1960. (ii) 1 ex. Chhitra Talao, Piprala, Sikar, 11.xi.1960. (iii) 7 exs., Malosi, Sikar, 11.xi.1960. (iv) 1 ex., Qazian, Nagaur, 4.ix.1960. (v) 1 ex., Badbirana, Ganganagar, 14.ix.1960. (vi) 2 exs., Palri, Nagaur, 6.ix.1960. (vii) 10 exs., Didia, Nagaur, 4.ix.1960. (viii) 10 exs., Rashidpura, Sikar, 11.xi.1960. (ix) 2 exs., Imirti, Nagaur, 6.ix.1960. (x) 23 exs., Beriganga, 10 km. North of Jodhpur, Jodhpur, 20.xii.1956. (xi) 3 exs., Merta, Nagaur, 28.xii.1956. All Coll. B. Biswas. (xii) 47 exs., Ramdesar, Ramdeora, Pokran, Jaisalmer, 20.xii.1957 & 21.xi.1957 (xiii) 35 exs., Tollabera, on Ram Deora Road, Pokran, Jaisalmer, 21.xii.1957 (xiv) 6 exs., Salamsar, Pokran, Jaisalmer, 20.xii.1957 & 23.xii.57. (xv) 19 exs., Gulab Sagar, Jaisalmer, 26.xii.1957 (xvi) 2 exs., Phalodi.

Jodhpur, 18.xii.1957 (xvii) 5 exs., Baap Tank, Barmer, 25.i.1958. All Coll. *K. K. Tiwari* and *S. Biswas*. (xviii) 5 exs., Gudha, Nagaur, 4.v.1958, 30.i.1958. (xix) 6 exs. New Kyar, Sambar Lake, 29.v.1958. (xx) 3 exs., Maraina bund, Sambar Lake, 21.v.1958. (xxi) 1 exs., Phulera, Jaipur, 16.v.1958. (xxii) 6 exs., Bargadh, Jaipur, 5.vi.1958. Coll. *T. G. Vazirani*. (xxiii) 4 exs. Gudha, Nagaur, 10.vii.1959. Coll. *A. K. Mukherjee*. (xxiv) 2 exs., Munthra Ka Talao, Bikaner, 16.xii.1963. (xxv) 1 ex., Mithari Nadi, Jodhpur, 30.xi.1963. All. Coll. *K. N. Nair* and *R. N. Mukherjee*. (xxvi) 4 exs., Ramsar, Phalodi, 21.viii.1964. Coll. *K. K. Mahajan*.

Distribution.—Rajasthan as above (first record). Elsewhere : India—South India, Maharashtra, West Bengal, Assam.

7 *Paraclepsis vulnifera* Harding, 1924

1924. *Paraclepsis vulnifera* Harding, *Ann. Mag. Nat. Hist.*, Ser. 9, xlv, p. 489, pls. ix-xv.

1927. *Paraclepsis vulnifera* : Harding, *Fauna of British India*, Hirudinea, p. 91.

Material.—(i) 26 exs., Gudha, Nagaur, 10.vii.1959. Coll. *A. K. Mukherjee*. (ii) 4 exs., Bara Talab, Gajner, Bikaner, 13.viii.1958. Coll. *K. N. Nair* and *R. N. Mukherjee*.

Distribution.—Rajasthan as above (first record). Elsewhere : India—South India, Maharashtra.

Family ERPOBDELLIDAE

Genus *Herpobdelloidea* Kaburaki

8. *Herpobdelloidea indica* (Kaburaki), 1921

1921. *Nematobdella indica* Kaburaki, *Rec. Indian Mus.*, 18, pp. 706-707.

1927. *Herpobdelloidea indica* Moore, *Fauna of British India*, Hirudinea, pp. 144-148.

Material.—(i) 1 ex., Gungara, Sikar, 2.ix.1960. (ii) 2 exs., Singar, Nagaur, 2.ix.1960. (iii) 1 ex., Palri, Nagaur, 2.ix.1960. (iv) 3 exs., Didia, Nagaur, 4.ix.1960. (v) 1 ex., Sothi, Ganganagar, 3.ix.1960. (vi) 1 ex., Basni, Nagaur, 3.ix.1960. (vii) 4 exs., Kailana Tank, Jodhpur, 14.xii.1960. All Coll. *B. Biswas*. (viii) 1 ex., Geodiasar, Ramgarh, Jaisalmer, 7.i.1958. Coll. *K. K. Tiwari* and *S. Biswas*. (ix) 4 exs., Takat Sagar, Jodhpur, 8.iii.1962. (x) 1 ex., Ramsar, Phalodi, Jodhpur, 21.vii.1964. All Coll. *K. K.*

Mahajan. (xi) 1 ex., Baropal, Udaipur, 1941. Coll. *M. L. Roonwal* and *B. N. Chopra*.

Distribution.—Rajasthan as above (first record). Elsewhere : India—Punjab, Madhya Pradesh, Maharashtra.

9. *Herpobdelloidea lateroculate* Kaburaki, 1921

1921. *Herpobdelloidea lateroculata* Kaburaki, *Rec. Indian Mus.*, 18, pp. 705-706, fig. 4.

1927. *Herpobdelloidea lateroculata*, Moore, *Fauna of British India*, Hirudinea, pp. 141-143.

Material.—(i) 1 ex., Imirti, Nagaur, 6.ix.1960. Coll. *B. Biswas*. (ii) 1 ex., Agolai, Jodhpur, 23.ii.1962. Coll. *K. K. Mahajan*.

Distribution.—Rajasthan as above (first record). Elsewhere : India—Madhya Pradesh, Manipur, Maharashtra.

Family HIRUDIDAE

Genus *Hirudo* Linnaeus

10. *Hirudo birmanica* (Blanchard), 1894

1894. *Haemopsis birmanica* Blanchard, *Ann. Mus. civico di Storia Naturale*, Genova, 2 (xiv), pp. 113-118.

1924. *Hirudo nipponica fuscolineata*, Moore, *Proc. Akad. Nat. Sci.*, Philadelphia, LXXXI, pp. 343-388, pls. xix-xxi.

1927. *Hirudo beninamica*, Moore, *Fauna of British India*, Hirudinea, pp. 192-199.

Material.—(i) 5 exs., Merta, Nagaur, 27.xii.1956. Coll. *B. Biswas*. (ii) 10 exs., Garan Ka Talao, Jodhpur, 30.xi.1963. (iii) 1 ex., Mithari Nadi, Jodhpur, 30.xi.1963. All Coll. *K. N. Nair* and *R. N. Mukherjee*.

Distribution.—Rajasthan as above (first record). Elsewhere : India—widely distributed.

SUMMARY

Altogether ten species belonging to six genera and three families are reported. All the ten are reported for the first time from Rajasthan, whereas one at serial No. 4, i.e. *Placobdella undulata* Harding is the first record for India.

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