

NOTES ON A SMALL COLLECTION OF LEECHES
IN THE ZOOLOGICAL SURVEY OF INDIA

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I—INTRODUCTION

The material of leeches dealt with in this paper was collected from various localities in Uttar Pradesh, West Bengal, Assam, Sikkim and N.E.F.A. by the Officers of Zoological Survey of India during the period 1956-62. It consists of individuals belonging to the following five species :—

(1) *Hirudinaria granulosa* (Savigny), (2) *Hirudinaria viridis* Moore, (3) *Haemadipsa montana* Moore, (4) *Haemadipsa sylvestries* Blanchard, (5) *Haemadipsa zeylanica* Moquin-Tandon, (6) *Haemadipsa zeylanica agilis* Moore, and (7) *Haemadipsa zeylanica montivindicis* Moore. The second species which is peninsular in distribution is recorded for the first time from Uttar Pradesh.

Thanks are due to the Director, Zoological Survey of India for affording facilities to work out the collection.

II—SYSTEMATIC ACCOUNT

Order	...	HIRUDINEA
Suborder	...	ARHYNCHOBDELLAE
Family	...	HIRUDIDAE
Subfamily	...	<i>HIRUDINAE</i>
Genus	...	<i>Hirudinaria</i> Whitman

1. *Hirudinaria* (*Poecilobdella*) *granulosa* (Savigny)

1820 (1822). *Sanquisuga granulosa* Savigny : *Systeme des Annelides*, Paris, p. 115. (Type-locality : Pondicherry).

1927. *Hirudinaria* (*Poecilobdella*) *granulosa* (Savigny), Moore, *Fauna Brit. India, Hirudinea*, London, p. 226, pl. 4, fig. 5.

Material.—(i) 1 example, Nishangara, Bahraich, Uttar Pradesh, 26. viii. 56. (ii) 1 example, Raipur, W. of Dehra Dun, Uttar Pradesh, 28. viii. 56. Coll. H. Khajuria.

2. *Hirudinaria (Poecilobdella) viridis* Moore

1927. *Hirudinaria (Poecilobdella) viridis* Moore : *Fauna Brit. India, Hirudinea*, London, p. 239, pl. 8, figs. 31-33. (*Type-locality*: Shasthancottah, Kerala State).

Material.—6 examples, pond in Varanasi Cantt., U.P., 20. x. 56 (*H. Khajuria*).

Remarks.—*Hirudinaria viridis* possesses a bright green colour. So far it has been recorded from Kerala and Madras, and is being recorded for the first time from Varanasi Cantt., U.P.

Subfamily	...	HAEMADIPSINAE
Genus	...	Haemadipsa Tennent

3. *Haemadipsa montana* Moore

1927. *Haemadipsa montana* Moore, *Fauna Brit. India, Hirudinea*, London, p. 269, pl. 9, figs. 38-40 (*Type-locality* : near Kukhal, Palni Hills, Madras).

Material.—(i) 1 example, Moshing valley, Kameng F.D., N.E.F.A., 6. vi. 61 (*K. C. Jayaramakrishnan*). (ii) 1 example between Domkho and Shergaon valley, N.E.F.A., 2. ix. 61 (*S. Biswas*). (iii) 1 example chug valley, Kameng F.D., N.E.F.A., 12. viii. 61 (*S. Biswas*). (iv) 1 example, Shergaon valley, Kameng, F.D., N.E.F.A., 3. ix. 61 (*S. Biswas*). (v) 2 examples, Gey, Sikkim, 20. v. 59 (*A. G. K. Menon*). (vi) 1 example, Makaibari, Sikkim, 30. iv. 62 (*G. Ramakrishna*). (vii) 3 examples, Aplane, Sikkim, 22. v. 62 (*G. Ramakrishna*).

Remarks.—Markings variable ; consisting of bold longitudinal stripes, median dorsal black stripe and pale or white marginal stripes. Recorded for the first time from N.E.F.A.

4. *Haemadipsa sylvestris* Blanchard

1894. *Haemadipsa sylvestria* Blanchard, *Ann. Mus. Civico stor. Naturelle*, Genova, (2) 14, p. 115. (*Type-Localities* : Carin Mountains, Burma).
 1927. *Haemadipsa sylvestris*: Moore, *Fauna Brit. India., Hirudinea*, London, p. 276, pl. 5 figs. 9-10, pl. 9, fig. 41.

Material.—(i) 14 examples, Nishangara, Bahraich, U.P., 7. ix. 56 (*H. Khajuria*). (ii) 2 examples, Nishangara, Bahraich, U.P., 26. viii. 56 (*H. Khajuria*). (iii) 1 example, Raimona, Goalpara, Assam, 3. iv. 57 (*B. K. Tikadar*). (iv) 1 example, Tarkhola, Darjeeling, 21. viii. 58 (*H. Khajuria*). (v) 3 examples, Amatulla, Kameng F.D., N.E.F.A., 18. v. 61 (*K. C. Jayaramakrishnan*). (vi) 10 examples, between Jhumla and Moshing, Kameng F.D., N.E.F.A., 12. v. 61 (*K. C. Jayaramakrishnan*). (vii) 44 examples, Dorkochu, Kameng F.D., N.E.F.A., 25. iii. 61 (*K. C. Jayaramakrishnan*). (viii) 20 examples, Camp No. 31, Shergaon village, N.E.F.A., 3. ix. 61 (*S. Biswas*). (ix) 3 examples, Camp No. 35, Sangloo, Kameng F.D., N.E.F.A., 12. ix. 61 (*S. Biswas*). (x) 2 examples, Camp No. 39, Domkho Kameng, N.E.F.A., 23. ix. 61 (*S. Biswas*). (xi) 13 examples, Padamchen, Sikkim, 1. v. 62 (*G. Ramakrishna*).

Remarks.—Colour brown, usually with three black dorsal stripes. Recorded for the first time from N.E.F.A., Bahraich in U.P. and Sikkim.

5. *Haemadipsa zeylanica* (Moquin-Tandon)

1826. *Sanguisuga zeylanica* Moquin-Tandon, *Monographie de la famille des Hirudinees*, Montpellier, p. 120 (*Type-locality* : Ceylon).

1927. *Haemadipsa zeylanica* Moquin-Tandon : Moore, *Fauna Brit. India Hirudinea*, London, p. 255, pl. 5, fig. 7.

Material.—1 example, Ankaling village, Kameng F.D., N.E.F.A., 24. v. 61 (*K. C. Jayaramakrishnan*).

Remarks.—Colour pattern usually mottled with a medial dorsal light or dark stripe. Recorded for the first time from N.E.F.A.

6. *Haemadipsa zeylanica agilis* Moore

1927. *Haemadipsa zeylanica agilis* Moore, *Fauna Brit. India. Hirudinea*, London, p. 266, pl. 4, fig. 6 (*Type-locality* : Shigadh, Nainital).

Material.—1 example, two miles S. of Ankaling Village, Kameng F.D., N.E.F.A., 24. v. 61 (*K. C. Jayaramakrishnan*).

Remarks.—Ground colour variable, but dark blotched pattern constant. Recorded for the first time from N.E.F.A.

7. *Haemadipsa zeylanica montivindicis* Moore

1927. *Haemadipsa zeylanica montivindicis* Moore, *Fauna Brit. India, Hirudinea*. London, p. 267, pl. 5, fig. 8, pl. 9, Fig. 37. (*Type-locality* : Sureil, Darjeeling).

Material.—(i) 6 examples, Palmjua, Darjeeling, 4. vii. 58 (*H. Khajuria*). (ii) 1 example, 2 miles s. of Ankaling village, Kameng F.D., N.E.F.A., 24. v. 61 (*K. C. Jayaramakrishnan*). (iii) 2 examples, Mangan, Singhik, Sikkim, 8. v. 62 (*G. Ramakrishna*). (iv) 24 examples, Kewzing, Sikkim, 17. v. 62 (*G. Ramakrishna*). (v) 19 examples, Lingjok, Kewzing, Sikkim, 20. v. 62 (*G. Ramakrishna*). (vi) 2 examples, Padamachen, Sikkim, 1. v. 62 (*G. Ramakrishna*). (vii) 3 examples, Makaibari, Sikkim, 30. iv. 62 (*G. Ramakrishna*). (viii) 7 examples, Aplane, Sikkim, 22. v. 62 (*G. Ramakrishna*). (ix) 15 examples, Kewzing, Sikkim, 19. v. 62 (*G. Ramakrishna*). (x) 5 examples, Lingship, Sikkim, 18. v. 62 (*G. Ramakrishna*). (xi) 14 examples, Singhik, Sikkim, 14. iv. 62 (*G. Ramakrishna*). (xii) 2 examples, sta. 7, Gangtok, Sikkim, 5. v. 62 (*G. Ramakrishna*).

Remarks.—Ground colour variable and dark spots or blotches absent or obscure. Recorded for the first time from N.E.F.A.

III—SUMMARY

The collection worked out is represented by two genera, five species and two subspecies. The extension of distributional range of the species dealt with is also shown.